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REPORT

OF THE

COMMISSIONER OF EDUCATION

FOR

THE YEAR 1902.

VOLUME 1.

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1903.

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THE UNITED STATES
BUREAU OF EDUCATION,

Created as a Department March 2, 1867.

Made an Office of the Interior Department July 1, 1869.

COMMISSIONERS.

HENRY BARNARD, LL. D.,
March 14, 1867, to March 15, 1870.

JOHN EATON, PH. D., LL. D.,
March 16, 1870, to August 5, 1886.

NATHANIEL H. R. DAWSON, L. H. D.,
August 6, 1886, to September 3, 1889.

WILLIAM T. HARRIS, PH. D., LL. D.,
September 12, 1889, to date.

EDUCATION DEPT.

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REPORT OF THE COMMISSIONER OF EDUCATION.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, D. C., July 22, 1903.

SIR: I have the honor to submit herewith the Annual Report of this Office for the year ending June 30, 1902.

The enrollment in schools and colleges, public and private, during the year 1901–2 was 17,460,000, the same being an increase of 160,770 pupils over the previous year. Of this number there were enrolled in public institutions supported by taxation and funds belonging to States and municipalities 16,041,016, as against 15,710,394, the number reported for the previous year.

Besides the enrollment in schools and colleges, as given above, there were pupils enrolled in special institutions more or less educational in their character and more or less of a practical or business character as follows:

Enrollment in special schools, 1901–2.

City evening schools, estimated	207,162
Business schools	137,247
Schools for defectives	28,827
Reform schools	35,247
Government Indian schools	24,120
Indian schools (Five Civilized Tribes)	13,864
Schools in Alaska supported by the Government	1,741
Schools in Alaska supported by incorporated municipalities (partly estimated)	1,700
Orphan asylums and other benevolent institutions	15,000
Private kindergartens	105,932
Miscellaneous (including schools of music, oratory, elocution, cookery, and various special arts)	50,000
Total	620,840

Adding the enrollment in these special schools to the total of schools giving general education, we have a total of 18,080,840.

The general items of statistics for the country as a whole and for the five census divisions may be seen in the following three tables.

In Table I is given a comparative summary of items of attendance of pupils, the number of teachers, receipts and expenditures, showing the increase from decade to decade for more than thirty years in what are called common schools, including under this designation schools of the elementary and secondary grades supported from public funds.

It will be seen that in the past six years the per cent of the total population enrolled in the common schools has not materially changed, being between 20 and 21 per cent of the entire population and about 72 per cent of the entire number of persons from 5 years to 18. The number in daily attendance during the sessions of the schools has risen from about 4,000,000 in the year 1869–70 to nearly 11,000,000 in the past year. The attendance has increased in regularity somewhat in the past thirty years. But the greatest increase has been in the length of the school term. This is due to the growth of villages and cities. A continually growing per centum of the population lives in large villages and cities and holds its schools open for a larger number of days each year. The average term of all schools was 132 days in 1870 and 145 days the past year. The average number of days attended by each pupil enrolled in the schools reached 100 days the past year for the first time in the history of the schools. The normal length of the school session in villages and cities is nine or ten months of 20 days each, vacation days being excluded, but public holidays such as fall within the school year—for example, Washington's Birthday and Memorial Day—are included in the school year, which amounts in cities to 200 days and perhaps in the majority of villages to 180 days.

The number of women teachers has risen to 317,204 out of a total of 439,596 teachers in the common schools of the United States. It will be noticed that twenty-two years ago the percentage of male teachers was nearly 43, while the past year it had fallen below 28. The average salary of teachers shows a very slight increase, that of male teachers being nearly $50 a month and that of women teachers being nearly $40. The aggregate of school property arose to more than $600,000,000 the past year, its increase being $25,000,000 over the previous year and an increase of $471,188,299 over the value of common school property in 1869–70.

The amount of money for the support of schools derived from local taxation—that is to say, municipal and county taxation—has steadily increased, due chiefly to the incorporation of large villages into cities and the provision for the schools out of the municipal tax fund. The increase of income from local taxes the past year was nearly $10,000,000 over the previous year, and the increase of receipts from all sources over the previous year, for the use of schools, was nearly $15,000,000.

The average expenditure per pupil of average attendance has

increased pretty constantly since 1880, the total expenditure being $12.71 per pupil of average attendance in 1880 and $21.38 per pupil in 1902. The percentage of expenditure for several purposes is shown in Table I to be as follows: 17.7 per cent for sites and buildings; salaries of teachers and superintendents, 63.8 per cent; other purposes, such as janitor hire, fuel, apparatus, text-books for indigent pupils, etc., 18.5 per cent.

TABLE I.—*Common school statistics of the United States.*

	1869–70.	1879–80.	1889–90.	1896–97.	1897–98.	1898–99.	1899–1900.	1900–1901.[a]	1901–2.[a]
I.—*General statistics.*									
Total population	[b] 38,558,371	[b] 50,155,783	[b] 62,622,250	[c] 71,445,273	[c] 72,792,617	[c] 74,178,966	[b] 75,602,515	[c] 77,262,743	[c] 78,544,816
Persons 5 to 18 years of age	[b] 12,055,443	[b] 15,065,767	[b] 18,543,201	[c] 20,484,160	[c] 20,782,210	[c] 21,090,070	[b] 21,404,322	[c] 21,897,678	[c] 22,261,863
Pupils enrolled (duplicates excluded)	6,871,522	9,867,605	12,722,581	14,823,059	15,103,874	15,176,219	15,503,110	15,603,451	15,925,887
Per cent of total population enrolled	17.82	19.67	20.32	20.75	20.75	20.46	20.51	20.20	20.28
Per cent of persons 5 to 18 years of age enrolled	57.00	65.50	68.61	72.36	72.68	71.96	72.43	71.26	71.54
Average daily attendance	4,077,347	6,144,143	8,153,635	10,052,554	10,356,458	10,328,396	10,632,772	10,692,091	10,999,273
Relation of same to enrollment (per cent)	59.3	62.3	64.1	67.8	68.6	68.1	68.6	68.5	69.1
Average length of school term (days)	132.2	130.3	134.7	142.0	143.0	143.0	144.3	144.2	145.0
Total number of days attended by all pupils	539,053,423	800,719,970	1,098,232,725	1,427,402,478	1,480,466,644	1,477,016,244	1,534,822,633	1,542,074,801	1,594,738,835
Average number of days attended by each person 5 to 18	44.7	53.1	59.2	69.7	71.2	70.0	71.8	70.4	71.6
Average number attended by each pupil enrolled	78.4	81.1	86.3	96.3	98.0	97.3	99.0	98.8	100.1
Male teachers	77,529	122,795	125,525	131,221	132,257	131,207	126,588	123,941	122,392
Female teachers	122,986	163,798	238,397	273,737	278,556	283,065	296,474	306,063	317,204
Whole number of teachers	200,515	286,593	363,922	404,958	410,813	414,272	423,062	430,004	439,596
Per cent of male teachers	38.7	42.8	34.5	32.4	32.2	31.7	29.9	28.8	27.8
Average monthly wages of male teachers[d]				$44.62	$45.16	$45.25	$46.53	$47.55	$49.05
Average monthly wages of female teachers[d]				$38.38	$38.74	$38.14	$38.93	$39.17	$39.77
Number of schoolhouses[e]	116,312	178,222	224,526	243,753	242,391	244,833	248,279	249,969	254,076
Value of all school property	$130,383,008	$209,571,718	$342,531,791	$477,321,190	$495,912,048	$523,679,996	$550,069,217	$576,963,089	$601,571,307
II.—*Financial statistics.*									
Receipts:									
From income of permanent funds and rents			$7,744,765	$9,047,097	$9,333,554	$9,007,887	$9,152,274	$9,823,482	$10,522,343
From State taxes			$26,345,323	$33,941,657	$35,122,035	$35,341,064	$37,886,740	$38,476,250	$38,330,589
From local taxes			$97,222,426	$130,317,708	$135,515,785	$144,897,878	$149,486,845	$161,245,764	$170,779,546
From all other sources			$11,882,292	$18,652,908	$19,862,008	$14,090,394	$23,240,130	$25,422,423	$29,742,141
Total received			$143,194,806	$191,959,370	$199,833,382	$203,337,213	$219,765,989	$234,967,919	$249,374,659
Per cent of total derived from—									
Income of permanent funds and rents			5.4	4.7	4.7	4.4	4.2	4.2	4.2
State taxes			18.4	17.7	17.6	17.4	17.2	16.4	15.4
Local taxes			67.9	67.9	67.8	71.3	68.0	68.6	68.5
All other sources			8.3	9.7	9.9	6.9	10.6	10.8	11.9

Expenditures:									
For sites, buildings, furniture, libraries, and apparatus			$26,207,041	$32,376,476	$31,415,233	$31,229,308	$35,450,820	$40,361,964	$41,758,488
For salaries of superintendents and teachers	$37,832,566	$55,942,972	$91,836,484	$119,310,503	$124,192,270	$129,345,873	$137,687,746	$142,776,168	$150,013,734
For all other purposes			$22,463,190	$35,995,290	$38,685,408	$39,579,416	$41,826,052	$42,905,104	$43,436,243
Total expended	$63,396,666	$78,094,687	$140,506,715	$187,682,269	$194,292,911	$200,154,597	$214,964,618	$226,043,236	$235,208,465
Expenditure per capita of population	$1.64	$1.56	$2.24	$2.63	$2.67	$2.70	$2.84	$2.93	$2.99
Expenditure per pupil (of average attendance):									
For sites, buildings, etc			$3.21	$3.22	$3.03	$3.03	$3.33	$3.77	$3.79
For salaries	$9.28	$9.10	$11.26	$11.87	$11.99	$12.52	$12.95	$13.35	$13.64
For all other purposes			$2.76	$3.58	$3.74	$3.83	$3.93	$4.02	$3.95
Total expenditure per pupil	$15.55	$12.71	$17.23	$18.67	$18.76	$19.38	$20.21	$21.14	$21.38
Per cent of expenditure devoted to—									
Sites, buildings, etc			18.6	17.3	16.2	15.6	16.5	17.8	17.7
Salaries	59.7	71.6	65.4	63.6	63.9	64.6	64.0	63.2	63.8
All other purposes			16.0	19.1	19.9	19.8	19.5	19.0	18.5
Average expenditure per day for each pupil (cents):									
For salaries	7.0	7.0	8.4	8.4	8.4	8.8	9.0	9.3	9.4
For all purposes	11.8	9.7	12.8	13.1	13.1	13.6	14.0	14.7	14.7

[a] The figures for this year are subject to correction.
[b] United States census.
[c] Estimated.
[d] Several States are not included in this average.
[e] Including buildings rented.

TABLE II.—*Number of pupils and students of all grades in both public and private schools and colleges, 1901–2.*

NOTE.—The classification of States made use of in the following table is the same as that adopted by the United States census, and is as follows: *North Atlantic Division:* Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania. *South Atlantic Division:* Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, and Florida. *South Central Division:* Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Arkansas, Oklahoma, and Indian Territory. *North Central Division:* Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas. *Western Division:* Montana, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Idaho, Washington, Oregon, and California.

Division.	Pupils receiving elementary instruction (primary and grammar grades).		Pupils receiving secondary instruction (high-school grades).[a]		Students receiving higher instruction.										
					In universities and colleges.[c]			In schools of medicine, law, and theology.[e]			In normal schools.[g]			Total higher.	
	Public.	Private (largely estimated).	Public.[b]	Private (in preparatory schools, academies, seminaries, etc.).	Public.[d]	Private.	Total.	Public.[f]	Private.	Total.	Public.	Private.	Total.	Public.	Private.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
The United States..	15,375,276	1,103,901	566,124	168,636	39,487	80,009	119,496	10,726	50,773	61,499	49,403	15,665	65,068[h]	99,616	146,447
North Atlantic Division..	3,552,652	383,870	184,800	53,279	5,470	31,150	36,620	270	17,898	18,168	17,242	1,268	18,510	22,982	50,316
South Atlantic Division..	2,251,329	107,005	30,953	25,589	4,710	11,129	15,839	1,392	6,803	8,195	4,083	1,558	5,641	10,185	19 490
South Central Division...	3,116,136	159,714	43,060	30,567	3,772	11,263	15,035	1,326	5,918	7,244	5,261	2,277	7,538	10,359	19,458
North Central Division...	5,599,946	407,624	269,467	48,719	19,601	23,281	42,882	6,826	18,492	25,318	18,907	10,485	29,392	45,334	52,258
Western Division.....	855,213	45,688	37,844	10,482	5,934	3,186	9,120	912	1,662	2,574	3,910	77	3,987	10,756	4,925

[a] Including pupils in preparatory or academic departments of higher institutions, public and private, and excluding elementary pupils, who are classed in columns 2 and 3. A classification of public and of private secondary students, according to the character of the institutions in which they are found, is given in Chap. XXXIX., vol. 2.

[b] This is made up from the returns of individual high schools to the Bureau, and is somewhat too small, as there are many secondary pupils outside the completely organized high schools whom there are no means of enumerating.

[c] Including colleges for women, agricultural and mechanical (land-grant) colleges, and scientific schools. Students in law, theological, and medical departments are excluded, being tabulated in columns 9–11. Students in academic and preparatory departments are also excluded, being tabulated in columns 4 and 5.

[d] Mainly State universities and agricultural and mechanical colleges.

[e] Including schools of dentistry, pharmacy, and veterinary medicine.

[f] Mainly in schools or departments of medicine and law attached to State universities.

[g] Nonprofessional pupils in normal schools are included in columns 4 and 5.

[h] There are, in addition to this number, 29,065 students taking normal courses in universities, colleges, and public and private high schools. (See Chap. XXXVIII, vol. 2.

TABLE II.—*Number of pupils and students of all grades in both public and private schools and colleges, 1901-2*—Continued.

Division.	Summary of pupils by grade.			Summary according to control.		Grand total.	Per cent in each grade of the whole number of pupils.			Per cent of public pupils.			Per cent of the total population enrolled in each grade.			
	Elementary.	Secondary.	Higher.	Public.	Private.		Elementary.	Secondary.	Higher.	Elementary.	Secondary.	Higher.	Elementary.	Secondary.	Higher.	Total.
1	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
The United States.	16,479,177	734,760	246,063	16,041,016	1,418,984	17,460,000	94.38	4.21	1.41	93.80	77.05	40.48	20.98	0.94	0.31	22.23
North Atlantic Division..	3,936,522	238,079	73,298	3,760,434	487,465	4,247,899	92.67	5.60	1.73	90.25	77.62	31.85	18.05	1.09	0.34	19.48
South Atlantic Division .	2,358,334	56,542	29,675	2,292,467	152,084	2,444,551	96.47	2.31	1.22	95.46	54.74	34.32	22.05	0.53	0.27	22.85
South Central Division ..	3,275,850	73,627	29,817	3,169,555	209,739	3,379,294	96.94	2.18	0.88	95.12	56.48	34.74	22.26	0.50	0.20	22.96
North Central Division ..	6,007,570	318,186	97,592	5,914,747	508,601	6,423,348	93.53	4.95	1.52	93.21	84.69	46.45	22.33	1.18	0.36	23.87
Western Division.....	900,901	48,326	15,681	903,813	61,095	964,908	93.37	5.01	1.62	94.98	78.31	68.59	20.39	1.09	0.36	21.84

In Table II the pupils are enumerated according to their grades of work, as elementary including the first eight years of the course of study, secondary including the ninth to the twelfth year's work of the course of study, and higher education including all higher instruction, which in colleges goes on from the thirteenth to the sixteenth year's work of the course of study, and in medical schools, divinity schools, and law schools for the most part including the thirteenth to the fifteenth year's work of the course of study. The tendency is to require a bachelor's degree for entrance upon the work of the professional school, but this tendency has not yet come to prevail extensively.

The enrollment in normal schools, which is counted in higher education, because of the severity of its methods of work rather than for the advanced grade of its topics, is shown separately in columns 12, 13, and 14 in Table II. In pursuing a branch of study in the normal school, the pupil is required to study it in the light of other related branches and to note especially the method of instruction in the branch. This general practice in normal schools requires more maturity than the grade of work done on the secondary course of study in high schools.

The number of secondary pupils enrolled in public high schools and other public institutions the past year is given at 566,124, an increase of about 8,000 over the previous year. The number of pupils of secondary rank in private academies and higher institutions was 168,636, the same being a decrease of nearly 9,000, so that the total number of secondary pupils has slightly decreased during the past year from the year previous.

The following table shows the movement of secondary students in public and private institutions in the past ten years; also the same figures reduced to per cent of population:

Secondary students and per cent of population.

Year.	In public institutions.		In private institutions.		In both classes.	
	Secondary students.	Per cent of population.	Secondary students.	Per cent of population.	Secondary students.	Per cent of population.
1889–90	221,522	0.36	145,481	0.23	367,003	0.59
1890–91	222,868	.35	147,567	.23	370,435	.58
1891–92	247,660	.38	154,429	.24	402,089	.62
1892–93	256,628	.39	153,792	.23	410,420	.62
1893–94	302,006	.45	178,352	.26	480,358	.71
1894–95	361,370	.53	178,342	.26	539,712	.79
1895–96	392,729	.56	166,274	.23	559,003	.79
1896–97	420,459	.59	164,445	.23	584,904	.82
1897–98	459,813	.63	166,302	.23	626,115	.86
1898–1899	488,549	.66	166,678	.23	655,227	.89
1899–1900	530,425	.70	188,816	.25	719,241	.95
1900–1901	558,740	.72	177,260	.23	736,000	.95
1901–2	566,124	.72	168,636	.22	734,760	.94

The number of secondary students in public and private high schools alone the past ten years is shown in the following table:

Public and private high schools since 1889–90.

Year reported.	Public.			Private.			Total.		
	Schools.	Teachers.	Students.	Schools.	Teachers.	Students.	Schools.	Teachers.	Students.
1889-90	2,526	9,120	202,963	1,632	7,209	94,931	4,158	16,329	297,894
1890-91	2,771	8,270	211,596	1,714	6,231	98,400	4,485	14,501	309,996
1891-92	3,035	9,564	239,556	1,550	7,093	100,739	4,585	16,657	340,295
1892-93	3,218	10,141	254,023	1,575	7,199	102,375	4,793	17,340	356,398
1893-94	3,964	12,120	289,274	1,982	8,009	118,645	5,946	20,129	407,919
1894-95	4,712	14,122	350,099	2,180	8,559	118,347	6,892	22,681	468,446
1895-96	4,974	15,700	380,493	2,106	8,752	106,654	7,080	24,452	487,147
1896-97	5,109	16,809	409,433	2,100	9,574	107,633	7,209	26,383	517,066
1897-98	5,315	17,941	449,600	1,990	9,357	105,225	7,305	27,298	554,825
1898-99	5,495	18,718	476,227	1,957	9,410	103,838	7,452	28,128	580,065
1899-1900	6,005	20,372	519,251	1,978	10,117	110,797	7,983	30,489	630,048
1900-1901	6,318	21,778	541,730	1,892	9,775	108,221	8,210	31,553	649,951
1901-2	6,292	22,415	550,611	1,835	9,903	104,690	8,127	32,318	655,301

The enormous increase of secondary instruction in public high schools in recent years is due to the policy adopted by large villages and counties to provide for free secondary instruction from public taxation. The number of public high schools increased from 2,526 in 1890 to 6,005 in 1900, and to 6,292 in 1902.

The number of students in universities and colleges the past year was 119,496, the same being an increase of 4,225 over the previous year. This number includes students in scientific schools. The number reported in the regular professional schools, of medicine, law, and theology, has reached 61,499. Adding together these, with the number in normal schools, the grand total in higher education of all sorts amounts to 246,063 students, of whom 99,616 are in institutions supported by public taxes and 146,447 in institutions supported by private corporations.

In the following table (III*a*) the variation of increase of the school system in the United States for the past twelve years is shown. In my Report of last year I have discussed these variations and endeavored to account for irregularities from year to year. I pointed out, for instance, the waves of increase of productive industry in the country. During the rising tide of these waves there is a movement of the population from farming to industries connected with manufacturing, transportation, and commerce. In the ebb tide there is a cessation and sometimes an actual return wave from manufacturing and commerce to agriculture. The commencement of the ebb tide, therefore, shows an actual increase of pupils enrolled in the elementary and secondary schools because the loss of remunerative employment is accompanied by an attempt to make the days and months of idleness remunerative in the shape of increased education.

The increase in secondary and higher education has taken the form of an ascending wave, which reaches its maximum when the majority of the community begin to find themselves burdened with debt and with high taxes, and therefore elect school committees who reverse the policy of school expenditure. The reversal sometimes continues for several years.

TABLE III*a*.—*Increase in twelve years of the total number of persons receiving education and of the total population.*

School year.	Pupils, public and private, of all grades.	Increase over preceding year.	Per cent of increase.	Estimated population.	Increase over preceding year.	Per cent of increase.
1889-90	14,512,778			[a] 62,622,250		
1890-91	14,669,069	156,291	1.08	63,809,588	1,187,338	1.90
1891-92	14,714,933	45,864	.31	65,027,377	1,217,789	1.91
1892-93	15,083,630	368,697	2.51	66,266,491	1,239,114	1.91
1893-94	15,530,268	446,638	2.96	67,537,727	1,271,236	1.92
1894-95	15,688,622	158,354	1.02	68,844,341	1,306,614	1.93
1895-96	15,997,197	308,575	1.97	70,127,242	1,282,901	1.86
1896-97	16,255,093	257,896	1.61	71,445,273	1,318,031	1.88
1897-98	16,687,643	432,550	2.66	72,792,617	1,347,344	1.89
1898-99	16,738,362	50,719	.30	74,178,966	1,386,349	1.90
1899-1900	17,020,710	282,348	1.69	[a] 75,602,515	1,423,549	1.92
1900-1901 [b]	17,299,230	278,520	1.64	77,262,743	1,660,228	2.20
1901-2	17,460,000	160,770	.93	78,544,816	1,282,073	1.66
Total increase		2,947,222	20.31		15,922,566	25.43
Average		245,602	1.55		1,326,880	1.91

[a] United States census. [b] Indian Territory added.

TABLE III*b*.—*Per cent of the population receiving education of different grades.*

Grade.	1889-90.		1899-1900.		1901-2.	
	Pupils.	Per cent of population.	Pupils.	Per cent of population.	Pupils.	Per cent of population.
Elementary:						
Public	12,494,233	19.95	14,821,969	19.60	15,375,276	19.57
Private	1,516,300	2.42	1,240,925	1.64	1,193,901	1.41
Secondary:						
Public	221,522	.35	530,425	.70	566,124	.72
Private	145,481	.23	188,816	.25	169,636	.22
Higher	135,242	.22	238,575	.31	246,063	.31
Total	14,512,778	23.17	17,020,710	22.50	17,460,000	22.23

THE AVERAGE AMOUNT OF SCHOOLING PER INHABITANT.

In Table IV*a* the average number of years of schooling measured according to the city session of schools of 200 days each is given. The scale gradually ascends from 1870 to 1902, having for the past six years exceeded five years of 200 days each as the average education given to each member of the population. The maximum was reached in 1900, when about five years and a quarter of 200 days each, that is to say, 1,046 days, would have been given to each individual in the country at the rate of public instruction for that year. The following year (in 1901) the rate decreased to 1,028 days, and the rate of the

past year was 1,032 days for each individual of the population. This table takes into account public and private schooling of whatever grade.

The following table, IV *b*, gives the same item, taking into account only the schooling furnished in elementary and secondary schools supported by public taxes. It seems that the past year shows a rate of instruction which if continued for the school age would give 930 days instruction in public schools to each individual of the population.

TABLE IV *a*.—*Average number of years of schooling (of 200 days each) that each individual of the population received at the different dates specified in the table, taking into account all public and private schooling of whatever grade.*

	1870.	1880.	1890.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	a1901.	a1902.
The United States ..	3.36	3.96	4.46	4.85	4.87	4.99	5.09	5.20	5.09	5.23	5.14	5.16
North Atlantic division ...	5.06	5.69	6.05	6.41	6.52	6.67	6.84	6.95	6.90	6.98	6.94	6.77
South Atlantic division ...	1.23	2.22	2.73	3.02	3.01	3.01	3.07	3.32	3.11	3.26	3.35	3.51
South Central division	1.12	1.86	2.42	3.00	2.81	2.87	3.03	3.04	3.09	3.21	2.97	3.11
North Central division	4.01	4.65	5.36	5.72	5.81	6.00	6.01	6.15	6.01	6.18	6.05	6.06
Western division	3.56	4.17	4.57	5.29	5.62	5.66	5.90	5.85	5.42	5.53	5.61	5.67

a Subject to correction.

TABLE IV *b*.—*The same, taking into account only the schooling furnished by public elementary and secondary schools.*

	1870.	1880.	1890.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	a1901.	a1902.
The United States...	2.91	3.45	3.85	4.28	4.35	4.43	4.53	4.63	4.55	4.66	4.58	4.65
North Atlantic division ...	4.43	4.84	4.99	5.34	5.51	5.64	5.78	5.88	5.85	5.91	5.87	5.93
South Atlantic division ...	.80	1.90	2.42	2.76	2.73	2.74	2.79	3.05	2.83	2.95	3.04	3.20
South Central division	.80	1.57	2.20	2.68	2.53	2.59	2.75	2.76	2.81	2.91	2.69	2.84
North Central division	3.71	4.19	4.67	5.14	5.26	5.35	5.49	5.51	5.41	5.57	5.48	5.49
Western division	2.77	3.57	3.98	4.71	5.01	5.12	5.36	5.34	4.96	4.99	5.01	5.17

a Subject to correction.

In my last Report I called attention to certain estimates which I have made on the entire amount of schooling in former epochs, which are briefly summarized as follows:

The average amount of schooling to each individual of the population did not exceed in—

	Days.		Days.
1800	82	1870	672
1840	208	1880	792
1850	420	1890	892
1860	434	1902	1,032

Laws relating to agricultural and mechanical colleges.—In Chapter I is given the first installment of a compilation of the general laws relating to the colleges established under the acts of Congress of July 2, 1862, and August 30, 1890, for the establishment and for the more complete endowment and support of colleges for the benefit of agriculture and the mechanic arts. The chapter opens with the acts of

Congress relating to these institutions and is followed by the State legislation in the following-named States: Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, and Louisiana. The legislative provisions given have been taken from the revised statutes or codes of the several States, except in the case of Idaho, and include only such laws as are now in force. It is hoped that the legislative provisions of the other States will be published in future Reports.

Franklin's influence in education.—In Chapter II (pp. 91–190) Professor Thorpe, of the University of Pennsylvania, has given the results of a long study devoted to the life and work of Dr. Franklin. While Thomas Jefferson stood for the political point of view of American affairs, Dr. Franklin stood for its economical point of view. His mind was bent upon seeing the conduct of life from the point of the social and industrial individual. His chief interest was the self-help of the individual, especially in the making of a fortune by industry and economy. He anticipates this age in the great interest which he felt in experimental natural science. The article has been prepared by its author to show Franklin's influence in American education, and the glimpses given of the ideas of Franklin's contemporaries on the subject of education add value to this study and give point to the presentation made of Franklin's ideals.

The college-bred negro (Chapter III, pp. 191–229).—A number of institutions for the higher education of the negro have united, under the lead of Atlanta University, in the investigation of certain phases of the "negro problem," and have held five annual conferences in connection with this movement. A concerted inquiry of this character, made by members of the race in question, should result in the collection of much valuable material, a study of which may be expected to throw light on existing conditions. Indeed, a considerable body of statistical and other data has already been gathered relating to the mortality and general condition of negroes in cities, the success of negroes in business and in promoting their social betterment, and kindred topics. The fifth conference, held at Atlanta in May, 1900, was devoted to an inquiry regarding college-bred negroes, their number, distribution, occupations, and success in life. A report on this subject was made to the conference by Prof. W. E. Burghardt Du Bois, of Atlanta University, a considerable part of which is reprinted in Chapter III. The report was based on a study of 2,331 graduates, of whom 1,941 were from negro and 390 from white colleges.

A considerable number of unsolicited statements by college authorities are given by Professor Du Bois, tending to show that the standing and character of negro students in Northern white colleges are at

least as good as those of the average white student. The chosen field of the college-bred negro would seem to be in the South. Nearly 90 per cent of the Southern-born graduates remained in the South, while of the Northern born about 50 per cent went South.

A large number of brief statements by the graduates show the character of their early life and training, their struggles and ambitions. These narratives possess great human interest and are well calculated to awaken sympathy; that there are so many earnest spirits among the youth of the race is an encouraging sign.

Of the 1,312 graduates reporting their occupations, over one-half are teachers, one-sixth are preachers, and one-ninth lawyers or doctors; about 4 per cent are in business, and less than 3 per cent are farmers or artisans. Statements by a number of lawyers and doctors as to their practice and treatment by the community are given. The assessed value of real estate owned by 557 negro college graduates is shown in a table. Only 23 had real estate to the value of $10,000 or over. The average was $2,411. About one-fourth of the whole owned between $1,000 and $2,000 worth of this kind of property.

Not the least valuable are the numerous replies to the questions, "Are you hopeful for the future of the negro in this country?" and "Have you any suggestions?" This unique collection of views and opinions, apparently for the most part expressed with great candor, exposes the underlying currents of thought in the minds of educated negroes as to the needs and prospects of their race. As summed up by Professor Du Bois, of 733 answers received 641 were hopeful, 40 were doubtful, and 52 were not hopeful. As to what the race most needed, 125 suggested college and industrial training, 49 an accumulation of land and wealth, 47 better-trained leaders, 34 more unity among themselves, 17 a more friendly feeling between the races, 8 better sexual morals, 8 keeping out of politics, 7 the emigration of some, 6 economy.

Francis W. Parker (Chapter IV, pp. 231–283).—The recent death of Francis W. Parker has recalled attention to his work as school superintendent in Quincy, Mass., from 1878 to 1880, and subsequently as principal of the Cook County Normal School, in Illinois. In Chapter IV are collected a number of papers, memorial and other addresses, etc., in which the work of Colonel Parker as an educator is reviewed and summed up, and estimates are given of the value of what has come to be known as the "Quincy method." An account of the work of the Cook County and Chicago Normal School from 1883 to 1899 by Colonel Parker himself is included, presenting the successive steps by which that school was brought to realize in a high degree his ideal.

The northern churches and the freedmen.—In Chapter V (pp. 285–314) Rev. A. D. Mayo records the history of the missionary and educational efforts of certain northern churches in behalf of the freedmen of the

Southern States. This intervention began with the missionary activity of the American Missionary Association, a strict antislavery organization, in 1861 among the "contrabands" at Hampton, Va. Between 1866 and 1870 this association received $243,753.22, during which time its sphere of action had vastly extended. The Freedman's Bureau turned over a large sum of money to it, which was expended in buildings for schools at Hampton, Va., Nashville, Tenn., Charleston, S. C., New Orleans, La., and elsewhere. It is estimated that the people of Great Britain contributed not less than $1,000,000 in money and clothing for the colored people during these years. Many rural schools for negroes were also founded in the Southern States by the association in these early years. The author speaks of the ridicule excited by the exalted titles of the schools established during this period, and gives details of the founding of a number of institutions which have since become more worthy of the name of colleges and universities. In 1870 the American Missionary Association was giving instruction to 21,840 pupils. The Freedman's Bureau withdrew its aid at this time, after having disbursed $213,000 for Southern education through this agency. The teachers sent to the slave States as a rule "were not received in any proper social or even religious fellowship by the white people among whom they came to serve," from easily understood reasons, although, adds the author, "there was no considerable portion of the superior people of the South who ever showed any persistent and public hostility to this work." By 1880 the association had 8 chartered "institutions of the higher education under the titles of college, university, and institute; 111 high and normal and 35 common schools, instructed by 230 teachers and missionaries." In 1886 it began founding schools among the 2,000,000 white mountaineers in the Southern Appalachians, who were largely illiterate. In 1896 the receipts of the association were $340,798.65 and expenditures $311,223.35, with a debt of $66,000. It had expended $11,610,000 from 1860 to 1896. This association has, more than other church organizations, "discouraged the mischievous habit of ingrafting the old-time parochial school" on the churches it has developed. In 1891 it reported 8 higher and secondary schools, 4 seminaries for the mountain whites in North Carolina, Tennessee, and Kentucky, and 93 normal, industrial, and graded schools. The association is under the auspices of the Congregational Church.

As early as 1862–63 the churches of the various denominations took steps to aid the negroes, and it was decided in 1863 that the chief need was schools and teachers. Teachers were sent to the seaboard in 1862 and up the Mississippi in 1863, i. e., even during the civil war. It was, however, decided by the various churches that the educational workers among the negroes must be church members, a decision which

prevented cooperation between the different denominations, and which rendered the secularizing of the schools for negroes impossible for a number of years. The Methodist Episcopal Church organized the Freedmen's Aid Society in 1866. By March 1, 1868, notwithstanding the financial depression of the country, $58,477.69 ($54,231.73 in cash) had been collected, of which $35,815.83 was expended in 9 States. There were 59 schools, with 124 teachers and 7,000 pupils. A large number of the teachers were ministers of the gospel, who labored both in church and school, and they all taught in the Sunday school. The superintendent spoke especially of the work of the schools in promoting the morals of the pupils. By 1878 the school work (leaving out of account the great church work in the South) showed 5 chartered institutions, 3 theological schools, 2 medical colleges, 10 academies, with an attendance of 2,040 students, 1,000 of whom were normal, in 11 States. Of the 6,000,000 colored people it was estimated that 64 per cent were "in the darkness of ignorance." The Freedmen's Aid Society's school work was distinguished by the attention given to industrial training. During the first thirty years of its existence the society expended more than $6,000,000. In 1901 it had 47 institutions "of Christian learning," about equally divided between negroes and poor whites, in all the former slave States, with lands and buildings worth $2,165,000. The number of students in all the industrial schools was 2,906 in 1901. Of the $90,625 annual appropriation $79,975 was for institutions for colored students, consisting of 1 theological school, 2 medical schools, 10 colleges or universities (so entitled), and 10 academies. There were also 3 universities and 22 academies for white students. It expended $171,773.01 for colored schools during the year 1900.

The author ascribes the want of success in raising funds in the North for educational propaganda among the negroes in the South largely to the fact that the denominations persisted in adhering to the parochial school—"the old European method of education"—while the majority of the people had become familiar with the public school system. He says that after thirty years of effort more than 50 per cent of the colored people of the South over 10 years of age can neither read nor write. The Presbyterian Church (North) in 1865 had declared in favor of special efforts in behalf of the freedmen. The report of its committee on missions for the freedmen in 1871 showed an indebtedness of $17,789.15. There were then 45 parochial schools, with 58 teachers and 4,530 pupils, besides a theological and 2 normal schools, an academy, and a seminary for colored girls. In 1883 the annual income of the board had risen to $108,120.85, the number of schools (parochial) to 65, with 6,995 pupils and 129 teachers. The board stated that 76 per cent of the freedmen were illiterate.

In 1896–97 there were 6 "superior" schools and 67 day schools, with 204 teachers and 9,442 pupils. During the twenty-seven years of its existence the board had expended $1,000,287.

The Protestant Episcopal Church expended $351,514 from 1866 until 1886 in church and school work among the negroes, when the commission for the colored race was established. The main object of the commission was to "provide educated and consecrated ministers" (colored) to labor among their brethren. Of the five chief institutions established by the Episcopal Church through this commission, only two are of the usual type of normal and industrial schools. These had 23 teachers and 500 pupils in 1900, and are of the better class. From 1886 to 1896 $441,494 was expended, making a total of $793,008 for thirty years. In the 15 old slave States and the District of Columbia, with a negro population of 8,000,000, the parochial schools of this church had an average attendance of 4,346 in 1896. There were 61 colored churches and 60 white clergymen engaged in work among the negroes of the South in that year.

The author refers briefly to the early opposition of the Society of Friends, or Quakers, to slavery, and as a result thereof the emigration of large numbers of Friends from slave-holding communities to the free "Northwest" (Ohio and Indiana) in the eighteenth and especially during the nineteenth century. After the close of the civil war efforts were made to prevent the removal of such a desirable population from the Southern States by the Baltimore Association of Friends, which sent supplies of provisions and money to the South. The denominational schools were rehabilitated in North Carolina, including a normal school. This movement extended to the schools for freedmen. In 1867 there were 6 day and 22 Sunday schools with 1,600 or 2,000 colored pupils. In 1869 the number of schools had increased to 24 day and 35 Sunday schools with 1,707 pupils, and after this the movement for colored schools seems to have declined. In 1869 the Pennsylvania Friends engaged in the work for freedmen reported 29 day schools, 40 teachers, and 2,000 pupils. The New York and New England Friends established seminaries and colleges for colored students in North Carolina and Tennessee. In 1895 the Friends of North Carolina reported 6 academies with 530 students and an expenditure of $1,776.25, and 14 schools, all preparatory for Guilford College, with an attendance of 6,000.

The Baptist Church began its missionary work in the organization of the Home Mission Society in 1832 for the purpose of "preaching the Gospel in destitute regions, more especially in the West," and extended its work to the freedmen in 1861–1865. In 1896 attention is called to the improvement in the provision for educating the colored people in thirty years. These consisted in (1) a system of public

schools from primary to normal supported by taxation, the appropriation for colored schools being 10 per cent of the total amount raised in that way for this purpose; (2) the industrial and normal schools founded by the Peabody, Slater, and Hand funds; (3) the missionary and educational work of the northern churches; (4) the work of the A. B. H. M. Society, which had expended $3,000,000 in teaching and training colored youth.

There are other important observations on the negro which should be brought out because of their authoritative source. Thus the superintendent of the Baptist education work says (1891), "While remarkable progress has been made by a certain portion of the colored people during the past twenty-five years in everything that pertains to mental, intellectual, and moral advancement, it has been confined to a comparatively small number of the 6,741,951 colored population. The masses of these are still in a deplorable condition." He attributes this to (1) unfavorable conditions; (2) indolent and improvident habits; (3) the one-room cabin; (4) the unkind and often cruel and criminal treatment of the women and children by the men; (5) the comparatively low degree of the social and parental relation, and the presence of ignorant and often unprincipled leaders, ministers and others, who dominate their ignorant fellows; (6) not teaching the subjects best fitted to elevate and instruct the masses of the negroes. The report for 1894 has this to say for competition with the whites, that the negro "must not be handicapped by any inferiority of preparation. He must neither ask nor receive any favor on the ground of race or color." Much of the inefficiency in the colored schools is due to intrusting their administration entirely to the colored members of boards of education. This results in placing the schools under the control of contentious preachers or politicians, and the superintendent is emphatic in saying "no" to the question whether the superintendency and management of colored schools should be intrusted to the colored public school teacher. This course would be retrograde. The weak point of the colored people is their lack of executive capacity and their tendency to jealousy and contention. In 1897 the 29 colored schools of the Baptist denomination were supported at an expense of $108,869.75. They had an attendance of 5,000. The colored people contributed $84,216.89 to the expenses.

Laws relating to temperance instruction (Chapter VI, pp. 315–338).—The enactment in 1901 by the general assembly of Georgia of a law providing for instruction in the "nature and effects of alcoholic drinks and other narcotics upon the human system" in connection with the study of physiology completes the list of the States and Territories, all of which now have upon their statute books laws of this character more or less rigid in their requirements. The present seems, therefore, an opportune time for reviewing the existing legislation upon

this subject, and I have accordingly caused to be collected and printed in Chapter VI the various State laws requiring this species of instruction.

Necrology.—In Chapter VII (pp. 339–422) are given brief obituary notices of educators, school and college officials, and other persons whose gifts or services in the cause of education deserve a permanent record.

Education in Canada.—Chapter VIII (pp. 423–463) treats of the conditions of education in Canada, comprising a brief historic outline of the several provincial systems of education, with current and comparative statistics. These Provinces have, like the States of our own Union, independent control of their respective school affairs. Prior to the federation of the Provinces in 1867, education had become a matter of general interest. Both the English and French settlers had brought with them traditional respect for parochial schools and ecclesiastical control of education, but the English settlers were also imbued with the ideas that were tending toward the supremacy of civil authorities in all secular affairs, and the first system of public education organized in the Provinces, namely, that of Ontario, was distinctly a system under public control. With the exception of Quebec, all the Provinces followed more or less closely the lead of Ontario in this respect. The school systems established resemble in many respects those of our own country, but in general they give larger place to central authority. The minister of public instruction in Ontario, for example, is more than the executive head of the system. As a member of the legislature he initiates and largely directs school legislation; he has also extensive power of appointment and important judicial functions. No other Province has given equal authority to its chief officer of education, but all have sought to secure uniformity of school provisions and educational standards by means of the central authority. Ontario is also characterized by very equitable regulations in regard to separate schools for Roman Catholic and Protestant pupils where desired. The latter seldom avail themselves of the provision, only seven separate Protestant schools, with 416 pupils, having been reported in 1900. At the same time there were 355 Roman Catholic separate schools with 42,397 pupils. This Province also has made ample provision and very strict regulations with respect to the training of teachers. Every position, from the lowest in the kindergarten to the highest in a collegiate institute, must be filled by a teacher who has obtained a government certificate. The lowest grade of certificate is valid only for three years, and the holder who during that time fails to meet the requirements for a higher certificate is eliminated from the service. The other Provinces have made great efforts to maintain a high standard of professional qualification on the part of their teachers, but the conditions are not so favorable to this result as in Ontario. The superintendent of education for New Brunswick complains par-

ticularly of a scarcity of competent teachers, which he attributes very largely to the more lucrative employments that attract educated and energetic young persons of both sexes. His discussion in his report for 1901 of the possible means of providing salaries which shall attract young people of ability to the service is given in full in Chapter VIII.

The public school systems of the several Provinces are supported by legislative grants and local funds. The latter are derived from two separate sources, municipal appropriations (made by divisions corresponding to counties and townships in the United States) and district taxes (in Quebec school fees also). The relative proportions from the different sources vary greatly in the several Provinces. In Ontario the local sources furnish about 93 per cent of the school income, and the legislative grant a little above 6 per cent. In Nova Scotia the legislative grant furnishes about 30 per cent and in British Columbia about 65 per cent of the entire income (Tables 4 and 5, p. 427). Nearly all the Provinces have adopted legal provisions for making the distribution of the legislative grant dependent in some measure upon the local effort put forth for the support of the schools, as indicated either by the amount of tax raised or by the average school attendance maintained. In Nova Scotia and New Brunswick the legislative grant is apportioned directly to the teachers.

The school system of Quebec differs in essential particulars from those of the other Provinces. The British Government has always shown great tolerance for the religious convictions of the Roman Catholic population, which forms about 86 per cent of the total population of this Province. The public schools are in charge of a council composed of two committees, one intrusted with the interest of the Roman Catholic schools and the other with those of the Protestant schools. The council acts as a whole in respect to all school questions in which the interest of Roman Catholics and Protestants are collectively concerned. School questions pertaining exclusively to the interests of either denomination are decided by that one of the two committees which represents the religious belief of the persons concerned. The executive head of the system is the superintendent of public instruction, who administers the affairs of both classes of schools. He is ex officio a member of the council of public instruction and of each of its two committees, but he may vote only in the committee of the religious faith to which he belongs. By this arrangement the Roman Catholic population virtually have a system of parochial schools under ecclesiastical control, since the law provides that the Roman Catholic committee of the council shall consist of the bishops and certain subordinate ecclesiastical officials of the Roman Catholic dioceses as ex officio members and an equal number of Roman Catholic laymen appointed by the lieutenant-governor in council. The extent of the elementary school work under this particular committee may be inferred from

statistics given (p. 441). It will be noticed that the elementary schools correspond practically to the first four or six years of the public schools in the United States. In 1900 they enrolled 201,124 pupils, of whom 169,729, or 84 per cent, were in parochial schools under the control of the Roman Catholic committee of the council, 4,884 were in independent Catholic schools, and only 26,511, or 13 per cent, in Protestant public schools. Since 1875, when this particular organization was effected, this system has been found to work very satisfactorily. Quite recently there have been signs of dissatisfaction with the parochial schools, but almost wholly because of their failure to adapt their instruction to modern requirements. Both committees of the council have, however, shown great interest in increasing the efficiency and elevating the standard of their respective schools. This unique system is described very fully (pp. 438–445), and offers very marked contrast with that of Ontario, which is also described quite fully (pp. 427–438).

The accounts of the public school systems of the separate Provinces contained in Chapter VIII include in each case retrospective tables that enable one to see at a glance the progress that has been made during an extended period. The survey includes also a brief review of higher education, for which provision was begun at an early date and has been continually increased. The preparation for the universities is made either in the high schools, which are especially flourishing in Ontario, or in academies, which generally have a semi-public character, as in Quebec. Under the head of "Higher educational institutions" are included universities that confer degrees, and classical colleges, which are either affiliated with a university or prepare students for matriculation (tables, pp. 460–461). Recently much attention has been given to scientific and technical education. The Ontario Agricultural College, at Guelph, which dates from 1874, is an institution of marked distinction. A special impulse has been given to provision for technical instruction within the last three years through the bequests of Sir William Macdonald, whose liberal benefaction to McGill University, amounting to $2,500,000, was speedily followed by a provision for a central manual training school in each Province, with a fund sufficient to maintain the same for three years.

Education in British South Africa.—Chapter IX (pp. 465–480) presents a somewhat extended sketch of the history of educational work in the late South African Republic, prepared by Mr. John Robinson, secretary to the director of the council of education, Witwatersrand, a local body formed in 1895 to foster education in the important district mentioned, which includes Johannesburg and the surrounding mining region. The paper is written from a purely English standpoint, but for this reason it has a peculiar historic interest, not only as setting forth the educational needs of the district, but because it

throws some light on the internal conditions that helped to precipitate the late war and discloses also among the English settlers in the Transvaal that impulse to concerted civic action which is everywhere characteristic of the race.

This paper is preceded by a brief survey of education in the several British colonies of South Africa. Cape Colony, which has a population of 1,527,224, of whom 376,987 are white and 1,150,237 are colored, reported in 1899 an enrollment of 147,424 pupils in schools supervised and partly supported by the Government. Of this enrollment 59,825 were white children and 87,599 were colored children; the former comprised 15.8 per cent of the white population and the latter 7.6 per cent of the colored. The schools for the colored children are chiefly mission schools, supported in a great measure by the church. The educational standard of these schools appears to be very low, but recent efforts for the improvement of the teachers and other essential conditions seem to promise better results in the near future. The general condition of the schools for the white children is reported to be very satisfactory. Higher education is fostered by the Government, which apportions grants to six colleges having departments of classics, mathematics, and physical sciences. The University of Cape Colony is merely an examining and degree-conferring body. There is also a Government school of agriculture at Stellenbosh. Among several private seminaries which receive some aid from the public treasury one of the most important is the Huguenot Seminary at Wellington, founded through the efforts of the Rev. Andrew Murray, whose action was inspired by reading the life of Mary Lyon. In response to an earnest appeal for assistance in his enterprise, two graduates of Mount Holyoke went out to the colony in 1874 and took charge of the institution at Wellington, which under their leadership has educated more than 1,000 young women, many of whom have become teachers in colonial schools or missionaries in the surrounding regions.

Since the annexation of the Transvaal by the British Government a system of public education has been organized in that colony, and considering the circumstances remarkable progress has been made in the practical work of establishing new schools and reviving those that had been broken up by the war. It is interesting to note that while according to the statistics of the late Transvaal Government 14,700 children were under instruction at the outbreak of the war, the number under instruction had reached 15,000 early in 1902. A similar work is going on in the Orange River Colony. The director of education for the Transvaal, Mr. E. B. Sargent, has given special attention to devising means for bringing the children living on the isolated farms within reach of educational advantages. For this purpose a particular form of "traveling school" has been adopted (see p. 479). It is purposed

to establish a permanent school in every village, and in every province a school of high grade located in the most important town. Every endeavor is being made to attract university men to the post of provincial headmaster. The salary offered for this position is £500 a year, with a house, together with £250 for an assistant. The system, which has been carefully worked out in all its details, is to be applied alike to the Transvaal and the Orange River Colony.

Early English writers on education (Chapter X, pp. 481–508).—In this interesting chapter Prof. Foster Watson, of University College, Aberystwith, Wales, gives brief biographical notices of the famous pioneers of the new education of the sixteenth century in England, together with some account of their works on education, with extracts. Some of the names of these early educators are not familiar to the ordinary reader, such as those of Lupset, Vivès, and Palsgrave, for example, while Lily's name perhaps may be known to a few as the author of the famous Latin grammar which served as a text for Charles Lamb's "Old and New Schoolmaster" in the Essays of Elia, and which was actually authorized by royal proclamation of Henry VIII in 1540 as the only grammar to be used in all England. Roger Ascham's book, the "Scholemaster," however, is a part of English literature, like his "Toxophilus," a treatise on archery, while the name of Sir Thomas More is sacred as that of one of the martyrs of history and a noteworthy philosopher of the Platonic type of mind. All these early writers treated education as a sacred subject, almost on a parallel with religion, with which it was associated. A curious historical fact is brought out in Palsgrave's dedication of his translation of a Latin play to Henry VIII. In speaking of the incompetency of schoolmasters, he says that some of them came to the universities from their "native countries" (i. e., different parts of the Kingdom), where the language was rude, and learned to write and speak Latin, but were not conversant with good English, so that when called upon to preach, or "to have other administration requiring their assiduous conversanting" with the King's subjects, they had been forced to read English authors to remedy their imperfections.

Henry VIII showed his appreciation of the importance of education when he said in his proclamation prefixed to and authorizing Lily's grammar: "Among the manifold business and most weighty affairs, appertaining to our regal authority and office, we forget not the tender babes, and the youth of our realm, whose good education and godly bringing up, is a great furniture to the same and cause of much goodness."

The higher education of women in the sixteenth century is illustrated in the often quoted passage from Ascham's account of his visit to the ill-fated Lady Jane Grey. "I came to Brodegate in Leicestershire to take my leave of that noble Lady Jane Grey. * * * I

found her in her chamber reading Phaedon Platonis in Greek, and that with as much delight as some gentleman would read a merry tale in Bocase [Boccaccio]. * * * I asked her why she would lose such pastime in the park? Smiling she answered me: 'I wisse, all their sport in the park is but a shadow to that pleasure that I find in Plato; alas good folk, they never felt what true pleasure meant.'" Lady Jane Grey could not have been 16 years old at this time.

So of his pupil Queen Elizabeth he wrote, "Yea, I believe, that beside her perfect readiness in Latin, Italian, French, and Spanish, she readeth here now at Windsor more Greek every day than some prebendary of this church doth read Latin in a whole week." Which statement, allowing for the natural pride of a teacher of so distinguished a pupil, may be taken with some reservation.

The need of public schools for girls was felt and argued by these early agitators on education; the conclusion being that "it is expedient that by public authority schools for women-children be erected and set up in every Christian commonweal, and honest, sage, wise, discreet, sober, grave, and learned matrons made rulers and mistresses of the same."

Thomas Lupset (1498–1530) expresses a truth which has often been repeated since as an argument for reading the classics. After advising his friend to read Aristotle's Ethics, Plato's Republic, certain philosophical works of Cicero, and especially Seneca, he adds: "These books can lift men above the clay of this earth and set them on a hill of high contemplation from whence they shall look down and despise the vanity which foolish men take."

Again, he urges the reading of classical authors for reasons which apply perhaps with even stronger force to the light literature of the present day than to that of four hundred years ago. He says: "And one thing, believe me, that in reading of these old substantial works * * * shall * * * gender a certain judgment in you, that you shall never take delight nor pleasure in the trifles and vain inventions that men now days write, to the inquieting of all good order: by reason that the most part of men that read these new flittering works lack perfect judgment to descrive [discriminate] a weighty sentence from a light clause, the which judgment can not be gotten, but by a long exercising of our wits with the best sort of writers."

The chapter, as shown from these extracts, is an interesting contribution to the history of education, and gives the needed evidence of the state of schools in the century preceding the English colonial settlements in America, setting at rest many questions as to the schools of the home country in which our forefathers were instructed in their early youth.

Medical inspection of schools abroad.—Chapter XI (pp. 509–526) contains an account of medical inspection of schools abroad. It is taken

from the "Handbuch der Schulhygiene" of Drs. Leo Burgerstein and August Netolitzky, of Vienna. The authors present arguments in favor of medical inspection and are of opinion that teachers should not act as sanitary inspectors, physicians alone being competent. They state the purpose of medical inspection to be the prevention of injurious results from school attendance. In tabulated form they present facts concerning diseases and mortality of children, showing that medical inspection should not only result in keeping sick children away from school, but also in preventing unsanitary influences during school hours. The authors give a brief survey of what has been done in instituting medical inspection in Europe, stating the number of physicians employed and salaries paid in several countries; also the regulations adopted by the authorities for the proper management of this inspection are quoted. It is found that Paris is the city where medical inspection was first established; it there dates back to 1833.

Admission to college on certificate.—Chapter XII (pp. 527–539) deals with the subject of admission to college on the certificate of secondary schools. The first part of the chapter gives the by-laws and rules of the recently organized New England College Entrance Certificate Board, the accrediting systems of different State universities, and a list of the institutions admitting students to the freshman class on the certificate of the principals of certain approved secondary schools. This is followed by an article by Prof. A. S. Whitney, of the University of Michigan, on Methods in Use of Accrediting Schools. Dr. Whitney shows that the accrediting system now in such general use originated at the University of Michigan in 1871, and he gives a short sketch of its origin and progress to the present time.

Miscellaneous educational topics.—In Chapter XIII are treated a variety of topics bearing upon educational history, methods, tendencies, etc.

1. The first American public school (pp. 541–550): The beginnings of our public-school system have been made the subject of considerable debate. Dr. W. A. Mowry has examined the circumstances attending the establishment of various early schools in Massachusetts, Rhode Island, New York, and Virginia, and has come to the conclusion that the school founded by the town of Dorchester, Mass., in 1639, can properly lay claim to being the first school designed for the general public and supported by direct taxation, within the present limits of the United States. This school has preserved its identity to the present day and is now in successful operation.

2. School supervision: The State of Massachusetts has developed a complete and effective system of school supervision. The adoption of the system has been heretofore voluntary, the State encouraging it by grants of money, but not requiring it, until it has extended so far as to bring under its influence all but 3 per cent of the school children

of the State. A recent act, however, has made the "employment of superintendents of schools the universal and permanent policy of the State after July 1, 1902." A statement giving some particulars as to the evolution and nature of the system, the duties and qualifications of superintendents, etc., as set forth in the reports of the secretary of the State board of education, is given on pages 550–556. The subject is further elucidated in an able essay, from the report of C. A. Brodeur, superintendent of the Chicopee (Mass.) schools, reprinted on pages 556–560.

3. George Charles Holls: On pages 560–566 are given an account of the life and the labors in the service of philanthropy and education of George Charles Holls, from a memoir by Hon. Henry Barnard. Dr. Holls came to this country from Germany in 1851, at the age of 27. The failure of his attempts to conduct an orphan asylum on the lines to which he had been accustomed in Germany illustrates well the dissimilarity of conditions prevailing in the two countries; subsequently however, under methods of his own devising, he realized more successfully perhaps than ever had been done before the true idea of a home for the unfortunate. His attitude of mind toward the "German-American" question is indicated by his dictum, "In my opinion the first mission of the Germans in this country is to become Americans."

4. The Brothers of the Christian Schools are treated of on pages 566–570. The rise of their schools in this country is set forth, while their methods and the general character of their instruction are recorded with sufficient detail to explain in some degree the success which has attended their efforts, and will be found to afford useful suggestions.

5. "Educational tendencies, desirable and otherwise," forms the subject of a timely essay by Dr. Andrew S. Draper, president of the University of Illinois (pp. 570–579). Dr. Draper is of the opinion that the educational system, at least in the grades below the college, is undertaking too much; that "research" is attempted where drill is needed; that strength is of more importance than "culture;" that children can not elect studies; that so many schemes have been forced into the elementary schools that the structure is incoherent and unsymmetrical. "We have shaped the work of the lower schools," says he, "with too much reference to the demands of the advanced schools, and we have exacted too many things for entrance to the colleges and universities."

6. In an address on rural school libraries Hon. Henry Sabin gives his views as to what such libraries should contain and the purposes they should be made to subserve in rural communities (pp. 579–581).

7. The elaborate programme of the Yale bicentennial celebration in 1901 is reproduced in condensed form on pages 582–583, followed by extracts from some of the addresses made on that occasion.

8. "The kindergarten ideal of nurture," a paper read by Susan E. Blow before the International Kindergarten Union in 1900, appears on pages 594–602. It is her belief that the conscious nurture of the free self-activity of childhood is the distinguishing merit of the kindergarten. It is through stimulating and guiding this self-activity that the child begins to discern the lineaments of his ideal selfhood.

9. A biographical notice of Joseph Le Conte (pp. 602–609), taken from a paper read by Prof. S. B. Christy before the American Institute of Mining Engineers, affords some instructive details of the career of this distinguished man of science and educator, whose devotion to his work was so whole-hearted that he could declare, "Although I have gone over my course in geology now fifty times, I am still as interested in it as ever." Contrary to the view held by some, he was firmly of the opinion that investigation should never be separated from teaching and that each was better for being carried on in connection with the other. He will probably be best remembered for his contributions to the theory of evolution, which he endeavored to show contained no materialistic implication and did not violate fundamental religious beliefs.

10. Those portions of the addresses delivered at the recent Johns Hopkins University celebration that are of general interest, as well as extracts from those delivered at the installation of Dr. Butler as president of Columbia University, are given on pages 609–632. These addresses touch many sides of the problem of the conduct of universities and are of permanent value, containing as they do the well-considered views of some of the ablest exponents of higher education in the United States.

11. A collection of statements of city superintendents as to the benefits of and objections to free text-books, followed by a table of the average cost per pupil of free text-books in cities, compiled by State Superintendent J. E. Hammond, of Michigan, is printed on pages 632–640.

12. Technical education in Germany, by Professor Alderson, of the Armour Institute in Chicago, and a report by a committee of the Western Drawing Teachers' Association on the teaching of drawing in Western normal schools, conclude Chapter XIII. The committee on drawing finds that drawing is not well taught in these schools and that their graduates are at a disadvantage in not being sufficiently prepared to give instruction in this important branch.

Educational progress in 1901–2.—The survey of the educational progress of the year 1901–2, Chapter XIV (pp. 647–666), is a reprint of an address by Dr. W. R. Harper before the National Educational Association. The review is necessarily limited to events of unusual importance, many of which, for reasons clearly stated in the introductory paragraph, pertain to movements that cover a period of several years.

In the field of elementary education Dr. Harper notes, as the most significant event of the year reviewed, the death of Col. Francis W. Parker. The loss of the personal guidance and boundless enthusiasm of this leader fell with peculiar force upon the institution which he had founded at the moment of its entrance upon a larger and fuller life. But the special impressiveness of Colonel Parker's death was due to the outburst of appreciation which it excited from every part of the country and which testified to the high estimation which is entertained of his work as a reformer of educational methods. In respect to measures under consideration during the year, Dr. Harper notes that they relate, in the main, to the practical conduct of schools and of school instruction. Among subjects that have excited special discussion are the selection in each department of study of the most important topics for treatment and the unifying of the various departments of study so that each will contribute to the other and that waste shall be reduced to a minimum. Continued interest has been manifested in the æsthetic training of the young, in efforts for improving the professional training and the professional status of teachers, and, in particular, in various endeavors for increasing the educational advantages of country districts by centralizing rural schools and by introducing practical instruction in agriculture comparable to the manual training provided in city schools.

With regard to the city of Chicago, Dr. Harper notes that after a long period of doubt the position of the kindergarten has been so strongly established that all future budgets must contain liberal provision for this division of educational work.

The work of the Southern Education Board and the organization of the General Education Board in the interests of Southern education mark events of truly national importance.

The address dwells particularly upon movements in the province of secondary education which necessarily affect also the higher province of the college and university.

The tendencies in secondary education which Dr. Harper has specified are as follows: (1) The disposition to give up provision for instruction in Greek to make way for more practical subjects. This he regards as a "movement backward." (2) The introduction of courses of instruction relating to commercial and industrial subjects, which in his opinion is being pushed forward too hastily for the best results. (3) A tendency which, during the present year, has attracted special attention, namely, the substitution of the certificate system for examinations in connection with college entrance—a practice thoroughly established in the West and apparently now gaining ground in the East. (4) Extension of the elective system in secondary schools. With respect to this tendency Dr. Harper says: "I am strongly of the opinion that unless the choice of subjects in secondary work is practically controlled

by the principal, election will prove injurious rather than helpful." (5) The increasing demand for university graduates and for trained specialists as teachers in high schools.

The successful inauguration of the college entrance board in the Eastern States has been followed by the establishment on the part of the North Central Association of Colleges and Secondary Schools of a commission on accredited schools. The first report of this commission, presented at the annual meeting held in Cleveland March 28, 1902, submits the conditions under which secondary schools shall be accredited, basing its recommendations on the definitions of the College Entrance Examination Board of the Middle States and Maryland, the committee of twelve of the Modern Language Association, the committee of seven of the American Historical Association, and the department of superintendence of the National Educational Association. Thus these several associations tend by their influence to unify educational standards throughout the country.

During the year under review the Chicago Manual Training School, which has exercised a great influence upon secondary education in the West, was associated with the new school of education in the University of Chicago. The opinion is expressed that in this new relation the school will enter upon a higher and broader educational work than is possible to an isolated institution of that character.

Among the many movements pertaining to higher education which are passed in review in this paper perhaps the most significant is the extension of university organizations to include departments or schools of technology, and the still more recent provision for commercial education.

These efforts, as Dr. Harper observes, have come from the necessity of adjusting universities more perfectly to the modern environment.

With respect to the very important question of shortening the college course, which is everywhere pressing for attention, Dr. Harper suggests the plan of allowing those who do not contemplate a professional course of study to take the full four years of work in college, and to arrange for the other class to count their early professional work as a part of the work accepted for the bachelor's degree. He notes that a great forward step in the direction of this policy has been taken in the recent action of Yale, and also that this policy has been adopted as the basis for the organization of the schools of medicine and law in the University of Chicago.

Education in France.—Chapter XV (pp. 667–719) treats of education in France, reviewing briefly the progress of the work under the Republic and setting forth in particular the important events which have characterized the present year. Under the fostering care of the Government the national system of education has had almost phenomenal development in the short period of twenty-five years. Side by

side with this system church schools of all orders have also flourished unrestrained. The latter, however, preserve historic traditions and social ideals whose continued influence has for some time been viewed with uneasiness by the Government. This feeling has led recently to a reversal of the former liberal policy in respect to rival agencies, and the present disposition seems to be to crush out the schools maintained by religious associations. The action gives special interest to the comparative statistics of the State and clerical schools which are set forth in various tables contained in Chapter XV.

By reference to Table III (p. 674) it will be seen that in 1900 public schools enrolled 75 per cent of all pupils in elementary grades, and private schools the remaining 25 per cent. A few of the public schools for girls still have teachers belonging to religious orders, so that the proportion of secular schools is a little less than the proportion of public schools, viz, 71 per cent instead of 75 per cent.

In the chief cities (Table XI, p. 684) the ratio of public school enrollment is below that for the country at large, ranging from 40 per cent to 67 per cent. The State secondary schools (table on p. 686) enrolled in 1899 less than 50 per cent of secondary pupils, viz, 85,599, against 91,825 in religious schools and 10,812 in private secular schools. It was in particular the predominating influence of the religious associations in the sphere of secondary education that prompted the law of 1901, subordinating the associations to the civil authorities. This measure did not necessarily imply extreme hostility to the religious orders, but the recent vote of the Chamber of Deputies refusing authorization for all the "religious associations" of men engaged in teaching seems to indicate that the Government will no longer tolerate a system whose general influence is regarded as detrimental to the Republic. The law, and more particularly the manner of its enforcement, mark therefore a crisis of deep import in the republican policies of the country.

These measures, whose purpose is to extend the Government control of education, have been accompanied by increased efforts for the improvement of the State schools of all orders. In the department of elementary education, irregular attendance and too early withdrawal from school interfere seriously with the immediate results and the permanent influence of the school training. The minister of public instruction has ordered a special and minute inquiry into the causes of irregular attendance, with a view to devising corrective measures. The item of annual average attendance is not included in the French statistics, but an approximate average is attained by comparing the enrollment for the months of highest and lowest enrollment, viz, December and June, with the total enrollment. The latest estimates upon this basis (for 1897) give for the public schools an enrollment for December equivalent to 87.5 per cent of the annual enrollment and

for June an enrollment equivalent to 84.6 per cent of the total; the corresponding ratio for private schools was, for both months, 91.1 per cent. These averages, however, obscure the conditions in the districts which fall far below the normal. Pending the results of the special inquiry attention is called to the fact that the "certificate of primary studies," instituted in 1834 and recognized by the law of 1882 as a means of stimulating an interest in elementary study, has conduced in part to the early withdrawal of pupils from school. The certificate exempts the holder from the obligation to attend school, and the reports show that a large proportion of children who come up to the examination for this award are at the minimum age (11 years) allowed for candidates. For the majority of the successful candidates the examination is the end of school life. One remedy suggested for this evil is that of increasing attendance upon the higher primary schools, which can only be done by increasing the industrial adaptations of their courses of instruction. This is more easily accomplished in the cities than in the agricultural sections, where the evils complained of are excessive. The improvement of rural schools has thus become a problem of great moment in France.

The unsatisfactory financial condition of French primary teachers, which has long been a source of serious anxiety to the Government, has led at last to practical measures for their relief from what had become an intolerable strain. A comprehensive investigation into the matter was undertaken at the instigation of M. F. Buisson and the facts elicited reduced to systematic form under the supervision of M. Levasseur, with the collaboration of the statistical division of the labor bureau. The method and the results of this investigation are set forth in full (pp. 710–719). This is probably the most complete presentation of the living conditions of primary teachers, both actual and as compared with those of persons in other employments, that has ever been made for any country.

The presentation created a profound impression. The public press discussed the situation as a "national peril," and as a measure of temporary relief the Chambers voted an addition of 5,011,200 francs ($1,002,240) to the educational appropriation. Of this amount 3,811,200 francs ($762,240) were to be used to increase the number of higher salaries, thus giving greater chance for immediate promotion, and 1,200,000 francs ($240,000) to increase the number of pensions, thus making way for promotions by the retirement of persons past service. In the meantime several bills have been introduced into the Chamber of Deputies, proposing radical changes in the classification of teachers, the conditions for promotion, and the scale of salaries.

The long-pending efforts for the reform of the secondary schools (lycées and communal colleges) resulted in a decree (May 31, 1902)

reorganizing both the internal régime and the curriculum of the schools in question. The new plan of studies is set forth in full, with explanations of its characteristic features (pp. 687–693). The nature of the changes is further emphasized by comparison with previous programmes, which are included in this chapter. These are the programme authorized by decree of 1890, annulled by the new order, and the still earlier programme of 1865, drawn up by Minister Duruy, who was the first to formulate a comprehensive measure for the adjustment of the curriculum of the classical schools of France to modern conditions. His scheme was soon modified, but it has furnished a basis for all subsequent efforts in the same direction.

The chief features of the new programme are the division of the whole course of study into two cycles—the first comprising four years, the second three years. The first cycle offers two parallel courses of study—one including Latin and optional Greek, the other without Latin or Greek. At the end of this cycle students must pass an examination which entitles one to a certificate of secondary studies. This certificate it is believed will have a certain value for the holder who enters at this point upon a practical career.

The second cycle offers a choice between four groups of studies: (a) Latin with Greek; (b) Latin with extended study of modern languages; (c) Latin with fuller study of the sciences; (d) modern languages and sciences with Latin. All four courses lead to the examination for the bachelor's degree. Thus, so far as official recognition goes, the nonclassical course is at last put upon the same footing as the classical.

The historic progress of the movement to secure equal recognition for classical and for nonclassical courses of study, which dates from 1795, is indicated by a chronological table (pp. 697, 698), showing the alternate stages of defeat and triumph through which the endeavor has persisted for over a century.

The department of higher education includes the State universities and a group of special schools of university rank which have combined with the Sorbonne to make Paris a distinguished center of learning.

The chief event in the recent history of this department is the law of 1896, which restored to the isolated groups of State faculties the legal title and the organic unity of universities. In view of the great importance of this change a special report has been issued by M. Liard, director of the department of higher education, reviewing its history and the development of the fifteen universities already organized. This report (which is summarized on pp. 699–704) affords striking proof of the fact that universities can not fulfill their mission as regards either the investigation or the dissemination of truth when

servilely subject to external control. "Civil life," in the words of M. Liard, "is the means of scientific life." The report shows also how profoundly the scientific movement has affected the conception of university education. One of the reasons advanced in favor of the creation of universities is "the daily increase of relations, many and vital, between the different sciences, and the appearance of new sciences, as yet scarcely defined, upon the confines of the older sciences." Inspired by this consciousness, the newly organized universities are multiplying chairs for special sciences and rapidly increasing their scientific equipment, and in this work they are heartily supported by the local authorities in their respective districts. Full particulars of the additional professorships and courses of study which have arisen from this scientific impulse are cited from a special report by M. Maurice Faure, which is an interesting supplement to the more comprehensive report of M. Liard.

From the tabulated statistics (p. 699), it appears that the number of students in the State universities rose from 17,605 in 1887–88 to 28,782 in 1897–98, and to 29,931 in 1901. The specialized character of the universities is indicated by the distribution of their students. In 1901 law claimed 10,152 and medicine 8,627, or both together 62½ per cent of the total number. The students in the faculty of sciences exceeded the number in letters, their registration being, respectively, 3,910 and 3,723.

The specialized character of higher education in France is further illustrated by the maintenance of State technical schools of a high order, which register about 3,500 students. These schools are intended to provide trained experts for the public service. The students are selected by rigid examination, the number in each school being strictly limited.

The comprehensive system of public instruction is supported largely by State appropriations, which in 1901 were nearly ten times the amount allowed for this interest in 1870. The total amount for the latter year was 206,906,483 francs ($41,381,296), of which 76 per cent was for the primary schools.

The total current expenditure upon public primary schools in 1896–97, the last year for which the analyzed accounts are reported, was 214,015,250 francs ($42,803,050). Of this amount 67 per cent was met by the State appropriations and 33 per cent by the communes. The expenditure was equivalent to $9.20 per capita of the enrollment in the public primary schools; this was very nearly double the per capita in 1877. Since 1897 the current expenditure has increased still more. There has also been a noticeable advance since 1877 in the proportion of the expenditures for primary instruction borne by the central Government, i. e., from 25 to 67 per cent of the total. The suppression

of the schools of the religious orders and the proposed increase of teachers' salaries will materially increase this proportion.

Chapter XVI (pp. 721–740) comprises a translation of the closing lecture of the course in pedagogy, delivered at the Sorbonne June 22, 1899, by Prof. Ferdinand Buisson, who, after twenty years' distinguished service as chief of the national department of primary education, was appointed to the chair of pedagogy in the University of Paris.

As we learn from this condensed summary of a season's lectures upon the education of the will, it was Professor Buisson's purpose to make the pedagogy of the will conform to its physiological and psychological growth. He traces the history of the will from its beginnings in the earliest reflex and instinctive movements up to its highest function in self-control and choice. He points out that the will is not a separate mental faculty, but is, in a sense, placed over all the intellectual, moral, and physical actions of the individual, and he draws therefrom general rules for guidance in pedagogy. He draws a striking parallel between the effort of the will in the large scale, in history, and its exercise by the individual. The reasoning leads to the conclusion that personal responsibility follows directly from freedom of choice and constant exercise thereof on successively higher and higher planes.

Education in Italy (Chapter XVII, pp. 741–787).—In this paper, by Dr. Tullio de Suzzara-Verdi, K. C. I., the author points out the necessity of knowing the history of a country before estimating its progress in education, and the difficulty a young nation, with few obstacles to overcome, finds in appreciating the prejudices in the way of the reformer in an old country like Italy, which has been torn by wars and revolutions, and been subject to invasions and political dissensions for centuries. No other country presents such alternations from the highest position in science, art, and philosophy to one of intellectual subordination as Italy has experienced in her history. The modern spirit has, however, been felt in Italy and has aroused there, especially since 1870, the solicitude of patriotic statesmen for public instruction, with the result that education, formerly the privilege of the few, is now made compulsory for the many.

The education department of Italy is organized throughout the Kingdom under one head, the minister of education, who is a cabinet officer. The system is uniform, so that a student from one university or school would find his grade unchanged in any other in the Kingdom.

The minister proposes to Parliament laws relating to education and is the executive officer of these laws as well, issuing decrees and rules for the administration of the schools. Under him are prefects of provinces, who are general supervisors of the schools of the provinces, and superintendents and inspectors.

Since 1898 great attention has been paid to school hygiene, the reports of the inspectors at that time showing the utmost neglect of the most ordinary regard for hygiene in many communes. At present, however, in erecting new buildings or improving old ones, all the modern requirements of hygiene have been insisted upon.

As in France, the political administrative unit in Italy is the commune, which is the smallest division of land having a local government, the latter consisting of a mayor and a council, both elective. A province is a larger division of land comprising several communes. The governor of the province (prefetto) is appointed by the National Government. The commune and province perform the functions of public instruction in common.

Beginning at the lowest grade of instruction, in 1898–99 there were 3,205 kindergartens with an attendance of 346,837 (176,545 males and 170,292 females), a gain over the statistics of 1895–96 of 392 schools and 29,720 pupils. Of these schools 537 follow Froebel's method, 134 Aporti's, and 2,534 a combination of both. The funds for the support of these schools are derived from the State, the provinces, the communes, and from private and religious sources. The income from these sources in 1901 was $1,469,553, and the expenditures for the schools $1,374,061. The average attendance was about 108 pupils to a school, and the expense $3.98 per pupil. Benevolent associations have been formed to assist the children of the very poor with school books, clothing, and food. Out of 8,260 communes 2,051 have adopted these infant schools, or 25 per cent of the whole number. The teachers numbered 7,370 (108 males, 7,262 females).

The primary school includes a course of five years of elementary studies, subdivided into two portions, one of three years, called the lower primary grade, in which attendance is obligatory upon every child over 6 years of age; the other, called the higher primary, is of two years and, while a continuation and progressive complement of the former, is not compulsory.

The course of studies in the primary grade includes Italian, practical arithmetic, rudiments of Italian history, geography, reading and writing, rights and duties of a citizen, the metric system, elementary gymnastics, and in rural districts elements of agriculture. The enrollment in the public schools was 2,444,288 (in a population of about 32,000,000) in 1898–99, against 2,379,349 in 1895–96. Including private schools, the number of primary schools in 1898–99 was 60,483, and of teachers 62,638. Enrollment (public and private) was 2,636,957. The effect of compulsory elementary education is shown by the decrease in illiteracy since 1871, when it was 73 per cent, against 42.92 per cent in 1898–99. In the latter year there were 220 complementary schools for girls, with an attendance of 7,459 pupils. These schools furnish instruction which is complementary to that given in the superior

primary and includes drawing, foreign languages, pedagogy, hygiene, and gymnastics. Graduates of these schools are fitted to enter the normal schools or take positions in the commercial or industrial world. There were 38 normal schools for males and 118 for females, with an attendance of 1,454 males and 20,034 females in 1898–99. The normal schools for males are decreasing rapidly, as it is generally conceded that the office of teacher in elementary schools is better adapted to women than men.

The communes are compelled by law to maintain elementary schools in number depending on the population. Besides, they contribute largely to the support of the kindergartens. In 1898–99 the communes expended for public elementary instruction of all kinds the sum of 66,302,966 lire, or $12,796,472. This makes the annual expense for instruction for each pupil of the obligatory primary grade, paid by the communes, amount to $5.25 (about 42 cents for each inhabitant of the Kingdom). Adding to this outlay by the communes the contribution from the provinces and the State, the total expense for public elementary instruction 1898–99 was 74,398,629 lire, or $14,358,935. It is estimated that the total annual public expenditure for education, aggregating that of the communes, the provinces, and the national treasury, is about 115,000,000 lire, or nearly $23,000,000.

Besides public instruction Italy is abundantly supplied with private schools, which are required by aristocratic tastes and are encouraged by the church.

Instruction in agriculture has taken a new start in Italy since the ministry of Dr. Guido Baccelli. Under his recommendations thousands of landed proprietors have given gratis small parcels of land to the schools for practical instruction in agriculture. This kind of instruction is given in the elementary rural schools, and teachers who have no practical knowledge of the subject are prepared to give the proper instruction by attending lectures by experts. In 1899, 1,802 such lectures were given to 15,000 teachers. Agriculture is taught also in the normal schools. This instruction is aside from that given in regular agricultural schools.

Industrial schools are under the charge of the minister of agriculture and commerce, and are supported by the communes, the provinces, and the State. There are industrial schools of art and trade in 58 cities, in which are taught the elements of science and technics applied to the various trades. There are also 12 inferior commercial schools, which prepare pupils for clerkships, minor mercantile pursuits, telegraph and railroad employment, etc., and 103 schools of art as applied to industries. There are, besides, 15 industrial and commercial schools for girls, in which handiwork suitable for females is taught.

Superior technical instruction is given in State technical institutes,

nautical institutes, and the universities. There were 37,900 students attending the Government and private technical schools in 1899–1900. This is exclusive of those pursuing the higher technical and scientific courses at the universities. Three thousand nine hundred of these pupils were females. There has been a gain in this department of study of 2,867 pupils since 1898–99.

These statistics show that technical instruction is coming more and more into favor and that Italy is sharing in the present universal movement in this direction.

In Italy secondary classical instruction is given in the ginnasii and lycei, the former having a course of five years, which is followed by a course in the latter of two years. The whole completes the preparation for the universities. The curriculum includes for the ginnasii Italian language and literature, Latin, history, geography, and arithmetic; and for the lycei the foregoing continued, with German or French, physics, natural history, and philosophy.

In 1900–1901 the attendance at the public Government institutions of this grade was 32,846 at the ginnasii (of whom 1,178 were females) and 13,270 at the lycei (287 females), making a total of 46,116. These figures represent only the State secondary classical schools, and would be greatly increased if the statistics for the private institutions of this class had been available. These statistics, nevertheless, show an increase of nearly 10,000 at the public secondary classical schools of Italy since 1895–96.

The attendance at the 22 universities in 1900–1901 was 23,425. It is interesting to note the attendance at the different faculties, as this indicates the current preferences of the students, which is doubtless largely influenced by the demands of the country. The attendance then was distributed among the various faculties as follows: Jurisprudence, 6,791; medicine and surgery, 6,211; mathematics (pure), 538; applied (engineering), 1,071; physics, 144; chemistry, 280; natural science, 473; engineering school, 200; letters and philosophy, 1,144; pharmacy, 3,528; notaries and solicitors, 806; midwifery, 1,202; veterinary surgery, 580; miscellaneous, 157; total, 23,425. To this should be added 2,621 students at the superior institutes, which have the programmes of universities, but are private. Altogether the author makes attendance of university grade 26,510 in 1900–1901, an increase of 694 over the previous year. Of this number 168 were female students taking studies of the university grade.

There are certain boarding schools (as we should call them) for girls, called convitti. In these institutions, which are survivals from former times, the young girls, who are under the tuition of nuns, are kept under the strictest surveillance. There are about 1,577 of these convitti, 760 of which are ecclesiastic, 262 partly lay and partly ecclesiasti[illegible], and only 555 are subject to governmental, provincial, or commun[illegible]s

control. About 53,000 young ladies attend these institutions annually. Of the 1,380 instructors only 470 were lay, the rest being nuns and priests. There were also 860 convitti for young men, with an attendance of 51,227.

The Italian Government pays attention to the education of its citizens in foreign countries, maintaining 52 royal schools of grades ranging from kindergartens to the liceo (one only of the latter grade) in foreign lands, at an expense of $180,000.

Besides these Government schools it appears that Italians maintain elementary schools in the colonies which are supported by societies which originated them and by private contributions. There are 100 or more such schools. Some colonial schools are of very ancient date, having been established in various cities of the East long ago as a help in the work of evangelization, but they are now established in the South American Republics. They are subsidized by the Government or by the "Societa Nazionale."

It is the prevailing opinion in Italy that classical and university instruction is above the real wants of the country, while agricultural and industrial instruction is not sufficiently patronized and should be encouraged in every way by the Government and Parliament. Italy is preeminently an agricultural country; her exports are agricultural and her imports industrial, the balance of trade being against her, hence the necessity for increased attention to technical instruction.

A table showing the attendance at the different university faculties in 1893–94 and 1900–1901 shows an increase in law, mathematics, physical, natural, and chemical science, letters and philosophy, pharmacy, veterinary medicine, and "agrarian" studies, while there was a decrease in attendance in medicine and surgery, and engineering of all kinds.

An interesting institution is mentioned among the literary and other societies of Italy, called the "Dante Alighieri," the object of which is to foster and diffuse the Italian language and culture among the four or more millions of Italians who are under the sway of non-Italian powers (as in Trieste, Malta, and the Tyrol), or have emigrated to foreign lands; to oppose legitimate resistance to all attempts on the part of foreign states to suppress the Italian language and literature in the colonies or provinces under their dominion, and to establish Italian schools and libraries in the colonies and foreign countries. This society is supported by all classes of Italians, from the King and court to the humblest subject, and has spread all over the Kingdom. It was organized in 1890, and now 60 committees within the Kingdom and 22 out of it are carrying out the patriotic programme of the society.

In an article prepared for this Report (Chapter XVII) by Prof. Alexander Oldrini on the Reform of the University and Higher Education in Italy in the debates before the Italian Parliament between

1883 and 1899, the author points out the vast intellectual influence of the populous Italian universities of the Middle Ages, their importance for intellectual freedom, and their share in producing the renaissance in the fifteenth and sixteenth centuries. Italian universities have had a continuous existence for eight hundred years, and their influence in keeping alive letters and civilization in the midst of barbarous surroundings was referred to in the debates upon their proposed reform.

Immediately after Solferino no problem appeared more important or meritorious to Italian statesmen than that of public education, owing to the degraded condition of the masses, the result of centuries of denationalization and ignorance. A general law, known as the Casati law, was accordingly passed in 1859, which has been called the educational code of modern Italy. Soon after, in 1862, began the series of debates and parliamentary reports, lasting thirty-five years, on university and higher education, which culminated in the Baccelli bill of 1898. The participators in the debates seem to have shown with remarkable unanimity their desire to infuse modern ideas and methods into Italian higher education, and place the universities abreast of those of the best of Europe, and make them leaders of the freed nation in the path of progress. The full results of these efforts were not made possible until after the unification of Italy in 1870. There was, however, less unanimity as to the means of accomplishing this result. The advocates of reform finally became divided into two parties, those in favor of freeing the universities from all state control and making them autonomous, and those who believed it necessary to retain them under government control, at least temporarily. Some wished to reduce the number of institutions, while others maintained that their usefulness as centers of influence would be impaired by any reduction. In discussions on the curriculum and freedom of teaching and studying, academic liberty—once the glory of the old Italian universities, as now of the German—was insisted on; enlargement of the scientific and technical courses and other modernizing improvements were debated and advocated with full information of the methods of the modern university. Among other matters, it is interesting and significant to note that Dr. Baccelli recommended earnestly self-government and self-discipline of the students. This practice would give the student corps, he argued, the sense of responsibility which free men take upon themselves when freedom is the basis of their action. The following is a summary of some of the articles of the education bill of 1898:

The Baccelli bill provides in Article I for the autonomy of the Royal universities and institutes of superior education under the supervision of the Government.

Article IV provides for the government of the institutions by a committee composed of the rector and representatives of the faculties

and a representative of the Government. Estimates to be approved by the minister of public instruction. Persons or corporations contributing to the resources of the institutions to the extent of one-tenth of the Government allowance shall be entitled to representation on the executive committee.

Article V. Faculties of universities and schools of higher education have the right to propose to the minister the appointment of professors.

Article VI provides for conferring diplomas by the universities and granting professional licenses thereupon by the Government.

Article VII provides for equalizing the programmes of private and Government instruction, authorizes independent (private) teachers to sit on examining boards, and declares that independent professors are to be preferred to Government professors in competition for university chairs.

Article IX provides for the abolishing of faculties when insufficiently attended.

Article X provides that all independent universities offering the scientific guaranties required by law shall be entitled, by royal decree, to the same rights as the State universities.

Illiteracy of the voting population (Chap. XVIII, pp. 789–818).—A study of the illiteracy of male persons of voting age (that is, 21 years and upward), based on the returns of the Federal census of 1900, was made recently for the bureau of investigation of the Southern Education Board; the results arrived at, as well as the material itself, will be found useful for reference, particularly in discussions relating to the right of suffrage, and I have therefore included them in Chapter XVIII.

Marked progress has been made in the reduction of illiteracy in the last three decades. From 1870 to 1900 the illiteracy of white males of voting age was reduced from 9 to 6.6 per cent, and of negro males of the same age from 83.5 to 47.4 per cent, the percentage in the latter case not being much more than one-half of what it was in 1870. As the bulk of the negro population is found in the South, the decrease testifies to the effectiveness of the public-school systems of the Southern States, but not in the degree in which it would, however, if the older negroes who were beyond the school age in 1870 had been eliminated.

Among the white voting population (whose average illiteracy is 6.6 per cent) the foreign born are most illiterate, their percentage being 11.5; the native born of native parents have 5.9 per cent, and the native born of foreign parents only 2 per cent. This small illiteracy of the sons of immigrants is general, being observable in every one of the five geographical divisions as a whole, though in each of the five New England States taken separately the sons of natives have by far the smallest illiteracy. These results are similar to those of the census of 1890.

In Chapter XIX (pp. 819–836) the customary list of foreign higher seats of learning is given with a number of new institutions inserted. Perhaps the most noteworthy fact presented in this list is that in attendance the university of Berlin has overtaken that of Paris. It enrolled in 1902 13,070 students, while Paris enrolled 12,171. In the list of polytecnica Berlin is also the first, with 4,811 students; so also in the list of agricultural and veterinary colleges Berlin is at the head, with 684 and 483 students, respectively. But in art schools Paris leads all other countries, having an attendance of 2,000.

Commercial schools in Switzerland.—Chapter XX (pp. 837–855) contains an account of the commercial schools of Switzerland, in which the history of business education in that country is traced to its beginning in the Middle Ages. It is not at all astonishing to observe similarity in the growth in all educational agencies throughout central Europe, the nations not being so sharply differentiated formerly as they are now. The present status of commercial education in Switzerland appears to be very satisfactory. That Republic had in 1900 27 public commercial secondary schools, with 1,800 students and 300 students of special branches. Some of these schools are of a high order; for instance, those of Zurich, Bellinzona, St. Gall, and Geneva. There are also 59 elementary commercial (evening) schools, with 5,244 students. While all these schools receive annual appropriations from the federal treasury, some are chiefly supported by the State (cantonal) governments, and a number are private institutions receiving subsidies. A characteristic feature of all these institutions is that they have in their courses of study certain so-called culture studies; that is to say, that they insist upon a general education preceding or accompanying the specific commercial training. The Swiss authorities make the subsidies they grant dependent in part upon this condition, cognizant of the truth that specialization always implies limitation; hence the Swiss authorities bestow much attention upon linguistic study in their schools.

Chapter XXI (pp. 857–885) contains consular reports which are printed here by courtesy of the State Department. Among these statements there are two on commercial eduction in Germany, one on a commercial school in transcaucasian Russia, and several referring to special schools, such as the weaving school at Glauchau, Germany, and the industrial school at Tourcoing, France.

Henry Barnard.—Chapter XXII (pp. 887–926) passes in review the distinguished services rendered by Henry Barnard to the cause of public instruction in this country, services which, by reason both of their character and their far-reaching influence, have a truly national importance. The record covers an extended period, beginning with the initial effort of Dr. Barnard in behalf of educational reform in Connecticut and continuing without interruption up to his death,

which occurred in 1900. The chapter comprises a review of his special services to education in Connecticut, as set forth in an address delivered at the celebration of Dr. Barnard's eighty-sixth birthday, in 1897, and extended accounts from different sources of his relation to the Bureau of Education.

Dr. Barnard's work in Connecticut and Rhode Island corresponds in time and in purpose with that of Horace Mann in Massachusetts. Their names are, indeed, inseparably associated in the movement which determined for all time the essential features of public systems of education throughout our country.

The work of Dr. Barnard in initiating practical reforms in education was supplemented by that of collecting in one great body the written records, not only of this movement, but of all similar movements in the history of mankind, and it is as an untiring collector and publisher of information pertaining to the interest which absorbed his attention that his fame has spread to all civilized nations. His enthusiasm for this particular line of research naturally directed his mind to the importance of some central clearing house of educational information, and he seems to have been the first person to publicly suggest such an agency.

His name is identified with all the preliminary measures that led eventually to the establishment of the National Bureau of Education, and he naturally received the appointment of Commissioner immediately upon its creation. During his three years incumbency of this office he rendered invaluable service by outlining a comprehensive scheme of inquiry which has to some extent guided the work of the office ever since, and also by the collection of important material respecting education in the District of Columbia and the legal status of the colored population in that District and in 14 States, which formed the bulk of a special report published by order of Congress.

Dr. Barnard's "monumental work," observes General Eaton, who succeeded him as Commissioner of Education, "was his Journal of Education." This publication, to which he devoted his fortune and the most arduous efforts, is universally valued as a reference book and represented in this country the first systematic effort to foster the comparative study of educational systems and movements. His plans for this publication were carefully elaborated and formed the basis of his suggestions as to the scope and operations of the Bureau of Education. (See pp. 923, 924.)

Fortunately it has been possible to collect very full particulars of the work actually done by Dr. Barnard, and of the spirit and purposes which animated him, from persons who were more or less intimately associated with him during the whole period of his active life. Great care has been taken, so far as possible, to verify by published documents and concurrent testimony the details presented in

this chapter. Hence the matter is a valuable contribution to the permanent educational history of this important period.

Length of college course (Chapter XXIII, pp. 927–948).—The subject of the length of the college course has been much discussed during the year among college men, especially among executive officers, and the interest aroused in the subject has led to the incorporation in this chapter of the action taken by some of the institutions toward reducing the time requirement for the bachelor's degree, together with a reprint of some of the discussions and a comparative statement showing the advance in admission requirements at Harvard University from 1642 to the present time.

Oxford University and the Rhodes scholarships (Chapter XXIV, pp. 949–999).—The past year is in some respects memorable on account of the publication of the provisions made for free scholarships at Oxford for the benefit of colonial and American students. I have pointed out in an article reprinted here some of the special advantages which an Oxford life has for American students there, and I have indicated some of the points of relation between the endowments (not only of Mr. Rhodes, but of our American millionaires) for education and the necessity thereby created for a larger representation of America in the universities of Europe, with a view to furnish a quota of our population who understand, through the intimacies of a student life, the characters and modes of life of the governing classes in the great nations of Europe.

Education in Great Britain and Ireland (Chapter XXV, pp. 1001–1068).—The current record of education in Great Britain and Ireland possesses unusual interest for the student of education because of the passage of the new education law (law of December 18, 1902). This measure presents a singular mixture of reactionary and progressive tendencies, which can only be understood by comparison with the earlier law of 1870. The conditions that gave rise to that measure are briefly summarized in the chapter before us. It is enough to recall here that, while conserving the work already accomplished by denominational effort, it placed upon civic authorities the responsibility for completing the school provision of the country. To this end the law provided for the election of school boards in every district of England in which school provision was shown to be deficient. These boards were authorized to establish schools, borrowing money for building purposes on the security of local property taxes, and levying a school tax for the current expenditures of the schools. The government appropriation for elementary education which, beginning in 1833 with a grant of £20,000 ($100,000), had reached in 1870 a total of more than £560,000 ($2,800,000) was to be continued and distributed to both board and denominational schools on the same conditions. In other words, the law of 1870 provided for a dual school system comprising

board schools, i. e., public secular schools comparable to those of the United States, and denominational schools, henceforth termed "voluntary," under church or other private managers.

The remarkable development that has taken place under the law of 1870 will be seen by reference to the retrospective tables. Whereas in 1870 there was school accommodation for only 8½ per cent of the total population, in 1902 the accommodation in schools recognized by the Government as efficient was adequate for 20½ per cent. The increased efficiency of the schools is indicated by the advancing ratio of average attendance to enrollment, i. e., from 68 per cent in 1870 to 81 per cent in 1902, and by the increased proportion of adult teachers. The standard of elementary education has also steadily risen, as shown by the increasing number of pupils taking subjects above the three rudiments (Table XIV, p. 1011). The most impressive fact brought to light by this review is the growth of the board schools. Since 1870 these schools have made provision for 45 per cent of the school population, and in 1902 enrolled nearly 48 per cent of all the children in elementary schools. Meanwhile the Church of England schools, which far exceed the combined strength of all other classes of "voluntary" schools, have steadily multiplied, and in the last year named had accommodation for 42 per cent of the school population and enrolled 39½ per cent of all pupils. The annual expenditure for this work has proportionately increased. In board schools it has more than doubled, and in "voluntary" schools nearly doubled. If capital expenditure be included, the increase is very much greater, the total amount expended in 1895 being nearly six times that in 1871 (see Table VI, p. 1007). As regards the Government grant, it is noticeable that in 1902 the Church of England schools received from this source a sum but little below that appropriated to the board schools (Table 9, Division B). The increase in the local school taxes (for board schools only), i. e., from £71,000 in 1871 to £6,300,000 in 1902, is a striking proof of the local interest and support which the school boards have evoked, and hence appears to be the most important outcome of the law of 1870.

By the new law, the text of which is cited in full, the school boards that have achieved such great results in England are abolished and the local authority for education transferred to county and city councils. These councils, like the boards, are popularly elected bodies, but on account of their multiform duties it is manifestly impossible that they should give direct attention to these new and important duties. Therefore they are authorized to establish educational committees, to whom they may delegate their powers under this law, save only the power of raising money by tax or loan. Furthermore, the public elementary schools provided by the local authorities will be directly under a body of managers appointed by the local authorities.

Thus it will be seen that the people are only indirectly represented in the management of their schools and are likely to lose that vital interest which was fostered under the school-board régime. Moreover, while providing for the support of church schools from local taxes, the law has materially strengthened ecclesiastical control of education, which is a policy in direct opposition to that of civic, nonsectarian control, toward which modern movements have tended. As originally drafted the bill made no provision for civil control of the church schools, but under the intense opposition excited by this endeavor to apply local taxes without public control an amendment was carried providing that two out of every six managers shall be appointed by local civic authorities. It was subsequently provided by the now famous Kenyon-Slaney amendment that the religious instruction given in these schools should be under the control of the managers. As a consequence of this amendment, religious instruction has virtually been brought under civic supervision. Thus the very slight concession to the determined advocates of public control over public moneys has resulted in a radical modification of the original terms of the law. This unexpected change has excited an opposition in the church party almost as intense as was manifested by the Nonconformists to the proposition that they should be taxed for denominational instruction opposed to their conscientious convictions. As it stands, therefore, the new law, although avowedly intended to unify the local control of education, seems to have intensified the elements of difference. The full significance of these unexpected provisions of the law as regards church schools is disclosed in an article by an English writer entitled "The clergy and the education act," which is included in this chapter. The complicated administrative system that has resulted from the proposed effort at simplification was exposed by Mr. James Bryce, M. P., the leader of the opposition in the House, in a speech which is also cited (p. 1026).

Apart from the provisions here discussed the law has made valuable contribution to the movement for unifying and extending the national system of education. The local authority which it sets up is empowered to make due provision for education above the elementary grade, corresponding in general to what is termed secondary education in the United States, and thus for the first time in the history of England all education below the university province has been dealt with in a comprehensive manner. Moreover, the new financial provisions put an end to that inequality between board and church schools which had become a serious evil. These favorable aspects of the bill are set forth briefly but lucidly in an extract from the London Times, entitled "The national aspect of the education bill" (pp. 1027–1028).

The final test of the measure will be found in the spirit in which its provisions are carried out by the county and city councils. There are

already evidences that, at least in the great cities, it will be administered in a spirit of fairness and with due regard to popular demands. This final test of the law is very fully elaborated in an article by Dr. Macnamara, M. P., entitled "The new education act at work," also cited in this chapter.

London is not included in the operations of the law, but a separate bill dealing with the metropolis has been introduced into the House of Commons. This bill follows in the main the policy of the general law. As first drawn, however, the London county council, a very progressive body, was made subordinate to the borough councils, which are the successors of the former vestries. This proposal to curtail the authority of the county council excited such a storm of indignation that it was withdrawn after it had passed the second reading in the House by an immense majority.

In view of the provisions of the new law with respect to secondary education the chapter includes a historical survey of measures relating to this province which, beginning in the early part of the last century, have been steadily tending toward increase in the number of secondary schools, variation in type, and some system of unified control or supervision. In respect to this province Scotland enjoys peculiar preeminence in the Kingdom. Its elementary and secondary schools are alike managed by local elected school boards, and there is no marked line of distinction between the two grades. In view of a proposed new education law for Scotland, concerted action is being taken to preserve this traditional unity.

No complete statistics of secondary education in England have ever been collected, but such statistics as are available have been brought together in the chapter here considered. The view of this important province is completed by programmes of typical secondary schools.

Under the head of higher education in Great Britain and Ireland the chapter presents tabulated statistics of universities and university colleges, and a brief summary of the most important recent events relating to this department of education. The extension of the sphere of university activity is one of the most significant facts in the recent history of the country. Oxford and Cambridge have greatly increased their influence over secondary education by their system of examinations for secondary schools, and have gained a certain influence over the artisan classes by a vigorous work of university extension. The recent reorganization of London University has given to that city a great teaching university. The university colleges recently established in the great centers of industry show progress both in resources and patronage. The Scottish universities are moving for the reorganization of their curricula—an action evidently stimulated by the Carnegie bequest, the disbursements from which for the present year

are given in detail. The urgent demand for a Roman Catholic university for Ireland led to the appointment of a royal commission to deal with the whole problem of university education in that division of the Kingdom. The report of this commission has just been issued, and on account both of its scope and judicial tone the hope is expressed that its recommendations will lead to a satisfactory settlement of the problem which has engaged its attention. The chapter closes with the citation from an article in Nature which discusses certain phases of university life in Great Britain as compared with Germany and the United States. The author admits that the conditions are too dissimilar in the different countries for exact comparisons; they are valuable rather for the facts they disclose than for relations which they establish. On the basis implied it appears that the United Kingdom has $4\frac{9}{10}$ university students for every 10,000 of the population, as against $7\frac{8}{10}$ in the German Empire and $12\frac{1}{10}$ in the United States.

The educational problem in England.—Properly to conceive the situation in England one must think all the social elements as existing in a state of tension, namely, each popular interest in Great Britain as existing in a constant struggle with all the other elements for its due consideration in the aggregate of all national interests. The manufacturing population, its capitalists and its laborers, the agricultural population, its landowners, and its gentlemen farmers who lease the lands, and the masses of people who perform the common labor, added to those who manage its commerce, capitalists, supervisors, and laborers in the shops and markets, and engaged in transportation, and besides these, the titled classes of gentlemen who live upon their incomes from the land—and count with these the ecclesiastics, those engaged in governmental service, the civil list, and the army and the navy, and add whatever other classes there may be—each pushes according to its strength and according to its particular interest, and the resultant is a balance of forces, an aggregate result, not the choice of any one party, nor the victory of any person or party, because the result is a compromise made which represents all the forces, each force limited through all the other forces. The aristocracy strives to retain its power and to get all that it can from the other classes. The mercantile population, the transportation population, the church, the farm laborers, and the manufacturing population all strive each to get its own, and to get the highest amount of well-being for its expenditure of strength and material means. This struggle reminds one of the principle in evolution known as the survival of the fittest. It seems to be a selfish struggle for the possession of means and power, each class against all the other classes, the strongest getting the lion's share and the weakest getting a pitiful morsel only, not sufficient for the food, clothing, and shelter demanded for a rational life. But this

cruel and unfeeling struggle for survival is supplemented by the national philanthropy which ekes out the stipend of the lower and lowest ranks of society by the poor rates collected for the support of the paupers and for occasional aid for those members of the ranks above the paupers who fall into circumstances of special need.

It is said in behalf of the existence of the grand struggle that it develops individual strength as nothing else can do, and as regards the people who get underneath in the struggle it is said that the church and the state look after their actual needs of subsistence; and on the whole there is a development of individuality such as could not be expected under a different organization of society. "Every people will have weaklings, who must be in a measure supervised and cared for by the rest of society, just as the children in the family must be more or less guided and provided for by their parents and the older members of the family."

To some persons this explanation seems a forced one, designed specially to justify what is called the competitive organization of society. To others, and especially those engaged in the social philanthropies, it seems inadequate.

This competitive struggle exasperates the student who is a partisan (for he takes sides with one party and does not feel a tolerant spirit toward the others), and it seems to him tyrannical that his favorites should get no show.

But English fair play means just this thing—the free contest of all and the aggregate result in which is represented at its full force, each force reduced to its true value as measured by its ratio in the strength of the whole.

There are castes founded on conquest long ago and on wealth inherited from remote ancestors; but there are new conquests in war and new heroes, and layers of new castes, and especially new strong people, continually arising through acquired wealth, through inventions, through new industries, new conquests in distant border lands. The captains of industry, the organizers of capital, all those who make combinations in transportation and invest in distant lands capital for public improvements, form a large class in the ranks of the new higher caste.

But an estimate that counts only the total process of the struggle of each might against the whole gets only a half of the elements of the problem.

There is besides this struggle the philanthropy that comes to the help of the weaklings of society, with hygiene at public expense, with alms distributed for the paupers, asylums for orphans, feeble-minded, and defectives, and with juvenile reformatories for reprobate children.

It is this curious make-up from two contradictory elements—the cruel collision of brute force and the tender-hearted philanthropy—

that puzzles students from other nationalities. It is difficult to see both sides at once. At one view it is a heartless struggle for control, each one for itself and no consideration for the others. Then, at another view, Great Britain is the nation of all in the world for the benevolent consideration of the "under dog."

The caste feeling as affecting English education.—In no particular perhaps is the English ideal more different from the American than in the fact that the caste system demands an habitual feeling of the necessity of restraint within one's sphere of life. It demands content and a cheerful acceptance of one's lot in life—the determination to do faithfully the duties involved in one's sphere. The American life and education go toward the creation of enterprise and a heart hunger for adventure. This, too, is the spirit of English literature, from Defoe's Robinson Crusoe or even Spenser's Faerie Queene down to Kipling's latest poems and stories.

In this we see, in some of its phases, what it is to have an established church. Such a church belongs to a caste system in which the orders of the population are fixed by the constitution, whether written or traditional. All Europe, in fact, separates its orders by hard and fast lines as compared with the United States and Anglo-Saxon colonies. The established church teaches this acceptance of one's lot in life as predetermined by heredity and accident. A settled conviction arises in the mind of the English citizen that it is for him to know his duty and perform it as prescribed by the functions of his caste. He has duties to those above him in the social rank and to those below him. He performs these duties and exacts, as far as he is able, a similar performance from others. His superiors should behave toward him with paternal condescension and humanity and his inferiors should perform their duties toward him with some trace of filial consideration.

It is difficult for people in the United States to conceive the true inward attitude of mind on the part of the inhabitant of Great Britain. It is somewhat difficult even for a Canadian or Australian to conceive the state of mind of English peasantry in the rural districts of England. Large opportunities wait on all individuals in the colonies, and limitation comes only from within, not from without in the form of social caste. But the grandfathers now living in the United States can remember hearing their grandfathers tell of the deference paid in the town to the squire and his family and to petty dignitaries of the kind. In colonial times it was in many places customary for the congregation to rise and remain standing while the squire with his family moved down the aisle and took his front seat in the church. The view of the world of the person who recognizes caste and feels it as an ordinance founded in the nature of things, compared with the view of the world of the person who is brought up to believe all social distinctions acci-

dents not affecting the fundamental rights of freedom and equality before the law of each individual, explains for us the radical difference which the Declaration of Independence has in the course of three generations produced in public and private opinion in this country. The continual readjustment of public opinion, rendered necessary by the Declaration of Independence and its doctrine of freedom and equality of all men in the substance of their humanity, has progressed so far in this time that the old view of fixed orders of rank in society, as defined by the written or unwritten constitution of the nation and as justified by the religion of the established church, seems impossible to a rational being. It looks to us as though it were possible only to a people with some moral obliquity in their view of the world. The equality of all has become a political axiom with us. And yet the thoughtful person will readily admit that the world at large outside of the United States has not arrived at this conviction. The citizen of the United States, however, is in the habit of supposing that his view of freedom must be the internal or private opinion of every human being on the planet, however different may be the practice. It is only, he says to himself, the practice that has not yet come up to the theory. But those who have made a careful study of the philosophy of history and of the comparative psychology of nations have come to see that the difference lies deeply in the political conviction of peoples and not merely in their practice.

I have dwelt on this point because the people of Great Britain come so near taking our political point of view that we are unable to explain their difference in practice.

We are just coming by means of animal psychology to understand in the case of bees and ants the rise of separate social orders and a fundamental instinct that determines the vocation of the life of the individual, limiting it to special functions, as in the case of laborers, drones, queens, etc. We are on the way to understand tribal life and the substantiality which caste based on heredity attains. By and by, perhaps, we shall see and understand all the degrees of emancipation from caste which the nations of farther Asia, the Chinese, and the East Indian civilizations have made on the way from savagery. These nations of farther Asia seem on a superficial view to have reached the acme of the caste idea. But they have achieved a great emancipation as compared with savage life, wherein nature rules with absolute sway. It is a great step when human nature gets reflected in literature and also in codes of customs and laws like those of Confucius and Mencius in China, or in the East Indian "code of Manu," for mere use and wont without reflection is mechanical as compared with a use and wont which is contrasted step by step with its ideal in literature, because the individual employs in this operation of comparing his deeds with its ideal a *vast* amount of self-activity.

Assuming the point of view of our declaration of independence, the establishment of a caste system and of divine rights founded on hereditary descent or the accident of history, seems like a struggle of selfishness to obtain unwarranted power.

On the other hand, setting aside this American view and approaching the study of the institutions of Great Britain from the standpoint of comparative history, we are filled with admiration for the devices invented by the unconscious spirit of the people to make the higher ranks, the hereditary nobility, and the possession of wealth founded on monopolies serve the lower ranks of the people. From this it looks as if the higher ranks had for their chief function the creation of opportunity for the lower ranks. The uneducated peasantry are more or less in the condition of "the man with the hoe," and contented with a lot in life which demands only a minimum of directive power. But the British East India Company creates opportunities for wealth and competence for hundreds of thousands of this stratum of the home population. It elevates them and their families into castes many degrees higher than those filled at home. And so the governing caste of Great Britain take possession of Australia, New Zealand, South Africa, and Canada, with no end of expenditure of wealth and of military power, all for the creation of opportunity for the average common citizen. When it is asked what the highest classes of people in England do, history answers with the details of British colonization by which the ranks of the poor and scantily educated castes of its people under the leadership of members of the aristocracy have planted civilization and nurtured it in all quarters of the world—and one may say the record of the growth of the United States and of its prosperity belongs to this part of British history.

But the possession and colonization of territory is not the only exhibit which history makes of the united force of the British Empire; there is another sphere which belongs to what may be called promotion or the capitalizing of foreign industrial enterprises, such as the building of reservoirs for cities, transcontinental railways, naval vessels, steamboats for river navigation, the improvement of harbors, the building of sewers, and all that class of operations which invests capital in internal improvements in advance of the power of the borderland nation to provide the capital for building them out of its own income. The borderland nation can not spare the capital to provide what is necessary for its own hygiene and good government, namely, pure water, electricity or gas for its illumination, and street railways for the cheap transportation of its population, but it can afford to pay a good rate of interest on capital thus invested. The small sum that is necessary to furnish a hundred gallons of pure water a day for each inhabitant can be afforded by the poorest of populations when paid in the form of water rates, which in the aggregate pay the interest on

the bonds which paid for the waterworks. The actual cost of sinking wells or the actual labor of bringing the water in buckets from a muddy river is an immensely greater tax measured in terms of money or daily labor. Builders of works of public hygiene make it possible to begin now to stamp out fever and pestilence and those dangers to public health to such a degree as to reduce the death rate to half its normal standard under conditions prevailing in the eighteenth century—a generation earlier than would be possible were the enterprise left to the borderland people. English capital, prompted by a prudent philanthropy, has reduced the death rate of London to the annual average of 20 deaths in each 1,000 of the population.

The estimate of the annual income from capital invested outside of Great Britain exceeds half a billion of dollars, or $12 apiece for each man, woman, and child in Great Britain and Ireland. These investments in financial undertakings in all parts of the world carry with them opportunity not only for the lower ranks of the British population, but also for all ranks of people in the countries benefited by these outlays of capital.

The Established Church as an educational power in England.—The English act appropriating £30,000 for education, was passed in 1838 about the time Horace Mann was beginning his gigantic efforts for the improvement of the common schools of Massachusetts. The church had in charge the education of the English people up to this time, and it was the church in all countries that had looked after education through the centuries up to the time that Frederick the Great first moved in the matter of people's schools. In England, as, indeed, in all European countries, the idea of caste is firmly established. Education seeks to adapt the individual for his station in life. Each caste seeks to establish its class privileges and defend itself against the castes above and the castes below it. But from the beginning the church has trained for its sacred offices men from the lowest ranks equally with the highest, and persons of the humblest birth have been able to mount to the highest ecclesiastical places. This is the democracy of the church. But this is more characteristic of the Catholic Church than of the English Established Church. While the firstborn of the nobility and of the gentry inherit the rank, titles, and wealth of their station, the younger brothers find places in the army or positions in the Government at home or abroad, and many of the younger sons enter the church. The endowments of the church have come in past times from those who owned the wealth of Great Britain, and the livings created by these endowments go mostly to younger sons and younger branches of the aristocratic families. This is the aristocracy of the church.

While the Established Church is sacred and treated with deference, having its adequate representation in the Upper House of Parliament,

the dissenters are tolerated merely, but not tolerated because of their deserts and the respectability of their cause, but by reason of the strength which they show politically. As they have to be reckoned with, they command a certain degree of tolerance and respect. But as to his cause the dissenter is regarded by official respectability as not only in error but as in some degree sinful and as manifesting a reprobate perverseness which he has to answer for in the sight of Heaven.

There is progress from age to age in this matter of toleration, but it is slow; indeed, it appears exasperatingly slow to the dissenters themselves in England and to people of the same views residing in the British colonies or in the United States.

The English Church furnished the old education according to caste, teaching to each child the manners and aspirations to fit him for his caste, teaching to everyone the Christian view of the world and appealing powerfully to the religious sense of all by its ritual, its music, and its solemn festivals and significant ceremonial. The church education in religion and manners was so important that the proposed secular school education in arithmetic, geography, history, reading and writing, and in the select specimens from the richest literature in the world did not seem to have any attraction for the majority of the nation. The school education proposed was looked upon as a godless education, not needed by the lower castes, a barren intellectual repast, not to be compared with the education given by the church in religious duties and the catechism.

Meanwhile science has arisen in the opposite camp, the camp of the dissenters, and has attacked the basis of all this teaching, beautiful as it is, given by the church.

Free thought or investigation has invented what it is pleased to call "the higher criticism" and has attacked the doctrine of the inspiration of the Bible. The force of Bible language and of Bible modes of viewing the world when they are set apart and consecrated, as it were, for the use of the church has been and is one of the most important "evidences of Christianity." But all this is very much weakened when the Bible is reduced to the common order of secular experience, for it deprives the church of its chief instrument in addressing the religious sense.

Natural science and philology come as reenforcements to the dissenter in England who attacks the church as the possessor of the sole right to the education of the people.

This explains the educational struggles that have gone on for more than half a century in England. It has been the struggle on the one hand of the dissenters, who are especially numerous in cities, to get the control of their own schools, and on the other hand the struggle of the Established Church, with all the prestige it has, to hold secure possession of its inestimable right of educating the entire people in its parochial schools.

In other countries of Europe there come violent upheavals of public opinion, cataclysms which shatter the defenses of time-honored authority and prestige. These upheavals are more or less modeled on the French Revolution. But in England there are no revolutions of this kind, for the conservative forces yield slowly to the pressure when it becomes irresistible and manage to bring forward the reform measures contended for by the opposite camp. The new reform measures are thus administered by the conservative parties, who manage in this way to retain control. It follows as a matter of course that the victory gained becomes more or less of a defeat in the subsequent administration of the reform.

Hence there are no Waterloo defeats in Great Britain. The contest is settled step by step with such small advances and such modifications as arise from yielding on both sides what seems to be least important or too extreme to command a political majority of votes—in the parish, in the county, in the city, or in Parliament. The church will hold its own, but it will do it by permitting and acknowledging from time to time a triumph of the opposing party and then converting to its purpose the new measure as much as possible by compromise.

Perhaps the most important instrumentality of the conservative classes in Great Britain is their constant effort to proselyte to their way of thinking the fringe of the dissenting party that can be converted to Toryism. The old and established order wields great power to attract and captivate by personal attentions and social recognition the rising young men of the commons, and the education of the youth of all well-to-do people at Oxford and Cambridge conduces to the same result.

Correspondence schools (Chapter XXVI).—The first regularly organized system of correspondence instruction in the United States appears to have been that of Chautauqua, dating from about the year 1880. It had its origin in the desire of the students of the Chautauqua Summer School, particularly the students of foreign languages, to continue their studies at their homes after they and their instructors had dispersed at the close of the summer session. For this purpose graded series of lessons in each subject were prepared, which were mailed periodically by the teachers to the pupils, who in their turn sent back in due course their exercises or recitation papers for examination. This work grew in volume until it led to the incorporation of the Chautauqua University in 1883, an institution empowered to grant degrees, though all of the work of the students was done by correspondence, except in the case of those who passed a few weeks of the summer at Chautauqua in personal contact with the teachers.

The correspondence work of Chautauqua University was never profitable financially, and was discontinued in 1900. In the meantime, however, the method had been adopted by a number of colleges and

Professional schools (Chapter XXXVI).—The statistics of professional schools show but little variation from those of the preceding year. For five successive years there has been a decrease in the number of theological students. The number now is 7,343, smaller by 204 than the number of the preceding year, and smaller by 1,028 than the number in 1898.

Since 1891 the numbers in law and dentistry have nearly trebled. There are now 102 law schools, with 13,912 students; 56 dental schools, with 8,420 students; 59 schools of pharmacy, with 4,427 students. Medical schools number 154, with 26,821 students, of whom 1,551 are homeopathic students.

Agricultural and mechanical colleges (Chapter XXXVII).—These institutions owe their origin to an act of Congress approved July 2, 1862, granting to each State in the Union 30,000 acres of land for each Representative to which it was entitled in Congress. The total amount of land reported as having been received under this act is 10,320,843 acres, of which 9,385,863 acres have been sold. The proceeds derived from the sale of the lands amount to $11,126,534, an average of about $1.19 per acre. The income derived therefrom amounts to $684,141, or about 6.1 per cent on the principal. Under an act of Congress approved August 30, 1890, each State and Territory receives annually $25,000 for the support of these institutions. The total income for the year ended June 30, 1902, was $9,167,059, of which amount $2,000,060 was derived from Federal sources and $4,253,257 was contributed by the several States and Territories. The amount given by the States and Territories exceeds the amount for the previous year by $1,179,521. The property held by the agricultural and mechanical colleges is valued at $69,660,303, the additions thereto during the year amounting to over $3,000,000.

The total number of students reported by these institutions was 47,047, of which number 30,787 were enrolled in the agricultural and mechanical departments. Of the latter number, 4,908 were reported by institutions for colored students, the remainder being in attendance at institutions for white students and at institutions in which no distinction is made in the admission of students on account of race or color. The reports show that 4,547 students were enrolled in short or special courses.

A brief summary of the legislation enacted during the year affecting these institutions is given in the chapter, as well as changes in courses of study and brief descriptions of new buildings. A short statement concerning the first session of the Graduate School of Agriculture is also included.

All of which is respectfully submitted.

W. T. HARRIS,
Commissioner.

The SECRETARY OF THE INTERIOR.

I. STATISTICS OF STATE SCHOOL SYSTEMS.

II. LEGAL PROVISIONS GOVERNING THE PRACTICE OF MEDICINE IN THE SEVERAL STATES.

III. LEGAL PROVISIONS GOVERNING THE PRACTICE OF DENTISTRY IN THE SEVERAL STATES.

I.—STATISTICS OF STATE SCHOOL SYSTEMS.

TABLE 1.—*The total population, the school population, and the adult male population.*

State or Territory.	Estimated total population in 1902.	The school population.				Estimated number of male persons 21 years and over in 1902.
		Estimated number of children 5 to 18 years of age in 1902.			Percentage of boys.	
		Boys.	Girls.	Total.		
1	2	3	4	5	6	7
United States	78,544,816	11,217,401	11,044,462	22,261,863	50.38	21,857,866
North Atlantic Division	21,802,750	2,666,035	2,663,755	5,329,790	50.02	6,490,400
South Atlantic Division	10,696,435	1,711,395	1,689,728	3,401,123	50.32	2,566,508
South Central Division	14,715,700	2,445,342	2,383,097	4,828,439	50.62	3,534,900
North Central Division	26,912,400	3,833,806	3,760,164	7,593,970	50.48	7,712,360
Western Division	4,417,531	560,823	547,718	1,108,541	50.59	1,563,628
North Atlantic Division:						
Maine	700,750	82,650	80,260	162,310	50.55	219,600
New Hampshire	419,000	45,100	45,300	90,400	49.89	133,300
Vermont	345,900	41,140	39,690	80,830	50.90	109,100
Massachusetts (1901)	2,856,000	315,690	318,820	634,510	49.75	858,800
Rhode Island	451,000	52,795	53,155	105,950	49.83	133,800
Connecticut	955,600	109,440	109,630	219,070	49.96	294,900
New York	7,553,500	900,120	906,820	1,806,940	49.81	2,271,000
New Jersey	1,986,000	246,900	249,480	496,380	49.74	585,900
Pennsylvania	6,535,000	872,800	860,600	1,733,400	50.35	1,884,000
South Atlantic Division:						
Delaware (1900)	184,735	24,877	24,105	48,982	50.79	54,018
Maryland (1901)	1,204,000	168,240	167,990	336,230	50.04	326,100
District of Columbia	289,500	30,292	32,622	62,914	48.15	87,080
Virginia	1,883,000	299,640	295,830	595,470	50.32	454,670
West Virginia	979,900	154,106	148,051	302,157	51.00	253,400
North Carolina	1,956,000	329,000	321,700	650,700	50.56	431,300
South Carolina	1,382,000	240,860	237,620	478,480	50.34	292,100
Georgia (1901)	2,256,000	377,260	375,260	752,520	50.13	509,700
Florida	561,300	87,120	86,550	173,670	50.16	148,200
South Central Division:						
Kentucky	2,210,000	346,400	337,664	684,064	50.64	559,900
Tennessee (1901)	2,044,000	332,602	321,243	653,845	50.87	492,900
Alabama	1,919,000	324,450	316,050	640,500	50.66	434,300
Mississippi (1901)	1,580,000	272,050	265,260	537,310	50.63	355,700
Louisiana	1,411,000	235,800	233,300	469,100	50.25	340,000
Texas	3,191,000	539,840	527,870	1,067,710	50.56	772,250
Arkansas	1,353,000	231,000	225,920	456,920	50.55	323,700
Oklahoma	519,700	83,200	79,600	162,800	51.11	142,450
Indian Territory	458,000	80,000	76,190	156,190	51.22	113,700
North Central Division:						
Ohio	4,238,000	565,900	554,800	1,120,700	50.50	1,236,000
Indiana	2,528,000	354,200	345,400	699,600	50.63	723,500
Illinois	4,940,000	678,100	673,900	1,352,000	50.16	1,436,000
Michigan (1901)	2,445,500	333,850	327,600	661,450	50.47	726,800
Wisconsin (1901)	2,103,000	313,870	310,040	623,910	50.31	580,000
Minnesota	1,858,000	275,750	270,200	545,950	50.51	537,800
Iowa	2,233,000	321,900	314,150	636,050	50.61	635,600
Missouri	3,200,000	476,173	466,648	942,821	50.51	882,400
North Dakota	371,800	56,893	54,486	111,379	51.08	110,900
South Dakota	428,100	67,670	64,840	132,510	51.07	120,100
Nebraska	1,080,000	165,100	161,000	326,100	50.64	304,900
Kansas	1,487,000	224,400	217,100	441,500	50.82	418,300
Western Division:						
Montana (1901)	261,600	29,520	28,720	58,240	50.69	109,600
Wyoming (1900)	92,531	11,570	10,530	22,100	52.35	37,898
Colorado	611,000	75,690	75,230	150,920	50.15	210,300
New Mexico	219,600	34,238	33,004	67,242	50.92	61,920
Arizona	139,500	18,430	17,640	36,070	51.09	50,030
Utah	286,100	46,596	46,603	93,199	50.00	69,440
Nevada	43,000	4,712	4,441	9,153	51.48	18,000
Idaho	180,600	26,410	25,290	51,700	51.08	60,210
Washington	618,000	79,390	76,880	156,270	50.80	233,300
Oregon	425,600	56,967	55,080	112,047	50.84	148,650
California	1,540,000	177,300	174,300	351,600	50.44	564,350

TABLE 2.—*Density of population, urban population, nativity and race classification, value of manufactures, illiteracy, and relations of the adult male and of the school population.*

[NOTE.—The statistics in this table, except those in column 12, are from the U. S. Census of 1900.]

State or Territory.	The total population.					The adult male population (21 years and over).				Number of children 5 to 18 years of age to every 100 persons of the total population.	
	Number of persons to a square mile.	Per cent in incorporated places of 8,000 and over.	Per cent of native and foreign white and of colored.			Value of manufactured products per capita of population.[b]	Number to every 100 children 5 to 18 years of age.	Per cent of illiterates (unable to write) among adult males.			
			Native white.	Foreign white.	Colored.[a]			Native white.	Foreign white.	Negro.	1870.	1900.
1	2	3	4	5	6	7	8	9	10	11	12	13
United States ..	25.6	32.6	74.4	13.4	12.2	$74.53	98.3	4.9	11.5	47.4	31.3	28.3
North Atlantic Div ..	129.8	57.0	75.6	22.5	1.9	140.22	121.8	2.0	15.2	15.3	28.3	24.4
South Atlantic Div ..	38.9	17.0	62.2	2.0	35.8	35.48	75.2	11.5	11.3	51.1	33.0	31.8
South Central Div ...	23.1	11.4	67.2	2.5	30.3	20.44	73.1	11.1	18.8	52.5	33.9	32.8
North Central Div ...	34.9	30.6	82.1	15.8	2.1	68.08	101.6	2.9	7.9	24.8	32.4	28.2
Western Division	3.5	31.2	76.1	18.6	5.3	63.96	141.1	2.4	7.7	13.4	25.6	25.1
North Atlantic Div.:												
Maine.....	23.2	23.7	86.3	13.4	.3	84.23	135.3	3.1	21.4	17.3	28.0	23.2
New Hampshire .	45.7	38.6	78.4	21.4	.2	127.22	147.5	2.0	24.0	14.8	24.8	21.6
Vermont.....	37.6	11.2	86.7	13.0	.3	80.80	134.9	4.1	23.3	19.7	27.2	23.4
Massachusetts ...	348.9	67.0	68.8	29.9	1.3	171.99	135.4	.9	13.8	10.5	25.5	22.2
Rhode Island	407.0	66.1	66.6	31.2	2.2	204.60	126.3	2.0	18.2	15.4	25.7	23.5
Connecticut.....	187.5	52.0	72.1	26.1	1.8	184.04	134.6	1.0	15.6	13.1	25.9	22.9
New York.....	152.6	68.5	72.5	26.0	1.5	141.97	125.7	1.8	12.1	11.3	28.1	23.9
New Jersey	250.3	61.2	73.4	22.8	3.8	133.15	118.0	2.3	13.4	18.3	29.0	25.0
Pennsylvania....	140.1	45.5	81.9	15.6	2.5	125.73	108.7	2.5	20.2	17.5	30.6	26.5
South Atlantic Div.:												
Delaware	94.3	41.4	75.9	7.5	16.6	101.42	110.3	7.1	17.6	42.7	31.8	26.5
Maryland.....	120.5	46.9	72.3	7.9	19.8	82.62	97.0	5.1	10.7	40.5	31.3	27.9
Dist. of Columbia.	4,645.3	100.0	61.7	7.0	31.3	101.53	138.4	.9	5.0	26.1	27.0	21.7
Virginia	46.2	14.7	63.3	1.0	35.7	30.91	76.4	12.2	10.5	52.5	32.4	31.6
West Virginia....	38.9	7.7	93.1	2.4	4.5	33.20	83.9	10.7	22.5	37.8	34.1	30.8
North Carolina...	39.0	5.1	66.5	.2	33.3	22.10	66.3	18.9	5.7	53.1	33.6	33.3
South Carolina...	44.4	7.5	41.2	.4	58.4	18.44	61.1	12.3	5.2	54.7	33.2	31.6
Georgia	37.6	11.0	52.7	.6	46.7	21.85	67.7	11.8	5.6	56.4	34.4	33.4
Florida	9.7	15.0	52.6	3.7	43.7	40.06	85.4	8.3	9.2	39.4	34.0	30.9
South Central Div.:												
Kentucky.....	53.7	16.9	84.4	2.3	13.3	33.22	81.8	14.3	8.6	49.5	34.4	31.0
Tennessee.....	48.4	13.4	75.3	.9	23.8	21.92	75.4	14.1	7.7	47.6	34.1	32.0
Alabama.....	35.5	7.3	53.9	.8	45.3	20.04	67.8	13.8	8.0	59.5	34.4	33.4
Mississippi.....	33.5	2.6	40.8	.5	58.7	12.08	66.2	8.1	9.5	58.2	33.7	34.0
Louisiana.....	30.4	22.8	49.1	3.7	47.2	28.14	72.5	16.9	24.6	61.3	31.1	32.6
Texas.....	11.6	11.3	73.8	5.8	20.4	17.16	72.3	5.8	25.4	45.1	34.8	33.5
Arkansas	24.7	5.4	70.9	1.1	28.0	16.19	70.8	10.5	6.4	44.8	34.2	33.8
Oklahoma	10.3	5.0	88.4	3.9	7.7	6.61	87.5	2.7	6.3	32.0	.....	31.3
Indian Territory.	12.6	0.0	76.0	1.2	22.8	4.25	72.8	10.7	16.8	41.3	.....	34.1
North Central Div.:												
Ohio	102.0	38.5	86.7	11.0	2.3	92.50	110.2	3.2	9.6	21.8	31.7	26.5
Indiana.....	70.1	24.2	92.1	5.6	2.3	64.84	103.5	4.4	9.6	27.7	33.8	27.7
Illinois.....	86.1	47.1	78.2	20.0	1.8	107.84	106.2	2.8	7.8	18.7	32.2	27.4
Michigan	42.2	30.9	76.8	22.3	.9	65.01	109.9	2.4	10.2	14.0	30.3	27.1
Wisconsin	38.0	30.7	74.6	21.9	.5	73.45	93.0	1.9	9.3	12.7	33.6	29.7
Minnesota	22.1	26.8	70.4	28.8	.8	50.95	98.5	1.0	6.4	6.9	32.5	29.4
Iowa	40.2	16.8	85.7	13.7	.6	28.43	99.9	1.6	5.2	22.0	33.1	28.5
Missouri	45.2	30.8	87.9	6.9	5.2	54.88	93.6	5.4	6.8	31.9	33.6	29.5
North Dakota....	4.5	3.0	62.4	35.3	2.3	11.18	99.6	1.0	6.3	16.5	28.7	30.0
South Dakota....	5.2	2.6	72.8	22.0	5.2	10.97	90.6	.8	4.9	16.3		31.0
Nebraska	13.9	15.8	82.5	16.6	.9	39.19	93.5	1.0	5.1	11.6	28.1	30.1
Kansas.....	18.0	14.0	87.7	8.6	3.7	29.00	94.8	1.7	6.4	28.1	29.8	29.7
Western Division:												
Montana.....	1.7	27.0	67.4	25.6	7.0	100.17	188.2	.8	6.7	10.4	10.2	22.3
Wyoming	.9	24.1	78.3	17.9	3.8	26.11	171.5	.8	7.8	21.2	9.4	23.9
Colorado.....	5.2	38.1	81.2	16.8	2.0	66.60	139.3	2.4	7.1	13.9	22.5	24.7
New Mexico	1.6	0.0	85.5	6.8	7.7	13.78	92.1	23.6	30.9	16.3	31.9	30.6
Arizona.....	1.1	0.0	57.4	18.2	24.4	104.54	138.7	4.5	30.9	11.1	16.8	25.9
Utah	3.4	25.2	79.4	19.1	1.5	30.00	74.5	1.2	4.6	4.7	35.1	32.6
Nevada	.4	0.0	63.3	20.3	16.4	19.31	196.5	.8	7.0	22.9	12.6	21.3
Idaho	1.9	0.0	82.0	13.5	4.5	12.15	116.4	1.1	5.7	15.4	11.3	28.6
Washington.....	7.7	31.9	76.1	19.7	4.2	72.76	149.3	.5	3.9	11.5	27.0	25.3
Oregon.....	4.4	23.9	82.4	13.0	4.6	48.10	132.7	1.1	3.4	9.5	32.3	26.3
California.....	9.5	43.7	73.2	21.3	5.5	77.27	160.5	1.1	8.1	14.6	24.5	22.8

[a] Including Mongolians and Indians.

[b] Less cost of raw material.

TABLE 3.—*School ages in the several States—State school censuses.*

State or Territory.	Age for free attendance at the public schools.	Age for compulsory attendance.[a]	School census.				
			Date of latest school census reported.	Age of persons enumerated.	Number of persons enumerated.		
					Boys.	Girls.	Total.
1	2	3	4	5	6	7	8
North Atlantic Division:							
Maine	5-21	7-14	1902	4-21	.....	.....	213,526
New Hampshire	5-	8-14	1902	5-16	35,821	35,530	71,351
Vermont	5-21	8-15	1902	5-18	40,018	38,918	78,936
Massachusetts (1901)	(b)	7-14	1901	5-15	233,953	240,274	474,227
Rhode Island	(b)	7-15	1902	[c] 5-15	43,828	44,003	87,831
Connecticut	(b)	7-16	1902	4-16	.....	.....	203,992
New York	5-21	8-16	1902	5-18	.....	.....	1,630,702
New Jersey	4-20	7-12	(d)		.....	.....	.....
Pennsylvania	6-21	8-16	1902	6-16	.....	.....	1,004,728
South Atlantic Division:							
Delaware (1893)	6-21	(e)	1893	6-21	15,827	17,758	33,585
Maryland	6-21	[f] 8-16	(d)		.....	.....	.....
District of Columbia	6-17	8-14	(d)		.....	.....	.....
Virginia (1900)	5-21	(e)	1900	5-21	354,722	336,590	691,312
West Virginia	6-21	8-14	1902	6-21	162,646	153,164	315,810
North Carolina	6-21	(e)	1902	6-21	345,996	332,381	678,377
South Carolina	6-21	(e)	(d)		.....	.....	.....
Georgia (1901)	.....	(e)	1898	6-18	333,039	327,831	660,870
Florida	6-21	(e)	1900	6-21	81,712	79,716	161,428
South Central Division:							
Kentucky	6-20	7-14	1902	6-20	375,647	361,537	737,184
Tennessee (1901)	6-21	(e)	1901	6-21	392,690	378,585	771,275
Alabama	7-21	(e)	1901	7-21	.....	.....	676,285
Mississippi (1900)	5-21	(e)	1900	5-21	.....	.....	590,222
Louisiana	6-18	(e)	1899	6-18	209,154	195,603	404,757
Texas	8-17	(e)	1902	8-17	376,774	362,799	739,573
Arkansas	6-21	(e)	1902	6-21	251,217	244,151	495,368
Oklahoma	6-21	(e)	1902	6-21	91,290	86,535	177,825
Indian Territory[g]	.....	(e)	1901	5-21	79,915	76,501	156,416
North Central Division:							
Ohio	6-21	8-14	1902	6-21	639,256	606,137	1,245,393
Indiana	6-21	[c] 7-14	1902	6-21	393,153	368,648	761,801
Illinois	6-21	7-14	1902	6-21	811,724	789,451	1,601,175
Michigan (1901)	5-20	8-15	1901	5-20	367,846	362,255	730,101
Wisconsin (1901)	4-20	7-14	1901	4-20	375,622	367,905	743,527
Minnesota	5-21	8-16	(d)		.....	.....	.....
Iowa	5-21	[c] 7-14	1902	5-21	369,594	359,216	728,810
Missouri	6-20	(e)	1902	6-20	492,105	477,377	969,482
North Dakota	6-20	8-14	1903	6-20	53,403	50,528	103,931
South Dakota	6-21	8-14	1902	6-21	[h] 67,528	[h] 64,648	[h] 132,176
Nebraska	5-21	7-15	1902	5-21	190,423	184,917	375,340
Kansas	5-21	[c] 8-15	1902	5-21	257,298	249,522	506,820
Western Division:							
Montana	6-21	8-14	1902	6-21	31,129	30,607	61,736
Wyoming (1900)	6-21	7-16	(d)		.....	.....	.....
Colorado	6-21	8-16	1902	6-21	86,894	86,161	173,055
New Mexico	5-21	7-14	1902	5-21	33,995	30,074	64,069
Arizona	6-21	8-14	1902	6-21	13,019	12,240	25,259
Utah	6-18	8-14	1902	6-18	44,542	44,357	88,899
Nevada	6-18	8-14	1902	6-18	4,784	4,493	9,277
Idaho	6-21	8-14	1902	5-21	30,584	29,196	59,780
Washington	6-21	8-15	1901	5-21	85,316	83,266	168,582
Oregon	4-20	8-14	1902	4-20	70,315	68,151	138,466
California	6-21	8-14	1902	5-17	189,585	184,414	373,999

[a] The compulsory period here given is in many cases extended or shortened under certain circumstances.
[b] Not limited by law.
[c] Inclusive.
[d] No State school census.
[e] No compulsory law.
[f] Applies only to Baltimore city and Allegany County.
[g] Returns imperfect.
[h] Unmarried.

TABLE 4.—*Number of pupils enrolled in the common schools at different dates, and the relation of the enrollment to the school population.*

State or Territory.	Number of different pupils of all ages enrolled during the school year (excluding duplicate enrollments).					Per cent of school population (i. e., of children 5 to 18 years of age) enrolled.				
	1870–71.	1879–80.	1889–90.	1899–1900.	1901–2.	1870–71.	1879–80.	1889–90.	1899–1900.	1901–1902.
1	2	3	4	5	6	7	8	9	10	11
United States.	7,561,582	9,867,505	12,722,581	15,503,110	15,925,887	61.45	65.50	68.61	72.43	71.54
North Atlantic Div.	2,743,344	2,930,345	3,112,622	3,643,949	3,733,683	77.95	75.17	70.45	70.86	70.05
South Atlantic Div.	603,619	1,242,811	1,785,486	2,182,615	2,279,290	30.51	50.74	59.22	65.73	67.02
South Central Div.	767,839	1,371,975	2,293,579	3,018,609	3,156,590	34.17	46.43	60.14	67.28	65.37
North Central Div.	3,300,660	4,033,828	5,915,217	5,842,569	5,886,396	76.87	75.84	76.46	78.65	77.25
Western Division.	146,120	288,546	515,677	815,368	889,928	54.77	64.96	70.01	79.51	80.28
North Atlantic Div.:										
Maine	a 152,600	149,827	139,676	130,918	133,537	a 87.35	89.80	85.88	81.38	82.27
N. Hampshire	71,957	64,341	59,813	65,688	b 67,250	91.31	81.32	71.28	73.98	74.39
Vermont	c 65,384	75,238	c 65,608	65,964	65,008	.....	87.21	.....	82.15	80.43
Massachusetts	273,661	306,777	371,492	474,891	d 468,188	72.34	71.76	72.56	76.21	d 73.79
Rhode Island	a 34,000	40,604	52,774	67,231	69,357	a 59.24	59.59	62.65	66.79	65.46
Connecticut	113,588	119,694	126,505	155,228	161,545	80.83	76.97	72.02	74.54	73.74
New York	1,028,110	1,031,593	1,042,160	1,209,574	1,268,625	82.98	77.10	70.71	69.57	70.21
New Jersey	169,430	204,961	234,072	322,575	336,664	63.20	64.77	62.21	68.52	67.82
Pennsylvania	834,614	937,310	1,020,522	1,151,880	1,163,509	76.35	74.37	69.53	68.90	67.12
South Atlantic Div.:										
Delaware	20,058	27,823	31,434	36,895	e 36,895	50.04	65.20	66.19	75.33	e 75.32
Maryland	115,683	162,431	184,251	222,375	d 224,004	46.70	58.13	60.37	67.00	d 66.62
Dist. Columbia	15,157	26,439	36,906	46,519	48,432	41.60	55.40	63.10	76.81	76.98
Virginia	131,088	220,736	342,269	370,595	d 381,561	32.34	45.00	60.51	63.19	d 64.08
West Virginia	76,999	142,850	193,064	232,343	236,015	49.47	69.21	75.27	78.58	78.11
North Carolina	a 115,000	252,612	322,533	400,452	464,669	a 31.23	55.87	56.39	63.55	71.41
South Carolina	66,056	134,072	201,260	281,891	272,443	27.28	40.56	47.08	60.74	56.94
Georgia	49,578	236,533	381,297	482,673	502,887	11.89	46.24	58.45	65.30	66.83
Florida	14,000	39,315	92,472	108,874	112,384	21.21	44.16	71.10	66.57	64.71
South Central Div.:										
Kentucky	f 178,457	f 276,000	399,660	500,294	498,989	.....	.....	65.64	75.27	72.94
Tennessee	a 140,000	300,217	447,950	485,354	d g 499,010	a 32.00	58.21	74.05	75.09	d 76.32
Alabama	141,312	179,490	301,615	376,423	365,171	40.36	42.60	55.83	61.67	57.01
Mississippi	117,000	236,654	334,158	386,507	d 387,488	40.60	61.29	70.62	73.27	d 72.12
Louisiana	57,639	77,642	120,253	196,169	198,896	24.78	25.87	31.58	43.62	42.40
Texas	63,504	a 220,000	466,872	659,598	712,629	21.00	a 42.40	59.50	64.67	66.74
Arkansas	69,927	81,972	223,071	314,662	340,695	40.29	30.81	55.41	71.02	74.56
Oklahoma	.....	.....	.....	99,602	131,591	.....	.....	.....	79.82	80.83
Indian Ter. h	.....	.....	.....	.....	22,121	.....	.....	.....	.....	14.16
North Central Div.:										
Ohio	719,372	729,499	797,439	829,160	832,044	84.04	76.69	76.54	75.40	74.24
Indiana	450,057	511,283	512,955	564,807	560,224	78.64	82.39	79.24	81.10	80.08
Illinois	672,787	704,041	778,319	958,911	971,841	81.01	74.61	71.97	72.68	71.88
Michigan	292,466	362,556	427,032	504,985	d 510,031	79.66	78.08	73.45	77.13	d 77.11
Wisconsin	265,285	299,457	351,723	445,142	d 446,247	73.92	73.78	69.77	72.51	d 71.52
Minnesota	113,983	180,248	280,960	399,207	414,671	75.92	75.87	74.59	77.59	75.95
Iowa	341,938	426,057	493,267	566,223	560,173	84.44	83.52	85.51	89.06	88.07
Missouri	330,070	482,986	620,314	719,817	703,057	56.03	68.85	74.43	78.63	74.57
North Dakota	a 1,660	13,718	35,543	77,686	83,677	a 39.26	41.68	71.26	81.26	75.13
South Dakota			78,043	98,822	105,691			81.04	79.49	79.76
Nebraska	23,265	92,549	240,300	288,227	289,468	58.79	68.48	75.35	89.50	88.77
Kansas	89,777	231,434	399,322	389,582	389,272	74.22	73.23	88.56	89.21	88.17
Western Division:										
Montana	a 1,657	4,270	16,980	39,430	a d 42,400	70.24	63.77	71.14	72.80	a d 72.80
Wyoming	a 450	2,907	7,052	14,512	e 14,512	a 45.34	77.44	54.46	65.66	e 65.67
Colorado	4,357	22,119	65,490	117,555	130,369	42.28	60.82	72.20	88.19	86.38
New Mexico	a 1,320	4,755	18,215	36,735	40,184	a 4.42	13.32	42.25	61.43	59.76
Arizona	0	4,212	7,989	16,504	19,203	0.00	53.16	52.72	51.94	53.24
Utah	16,992	24,326	37,279	73,042	74,578	53.36	50.61	55.26	81.02	80.02
Nevada	3,106	9,045	7,387	6,676	6,952	53.97	79.73	73.80	74.06	75.95
Idaho	906	5,834	14,311	36,669	46,117	46.06	77.85	62.66	79.18	89.20
Washington	a 5,000	14,780	55,964	115,104	136,624	a 69.00	72.36	70.58	87.86	87.43
Oregon	21,000	37,533	63,254	89,405	c 109,659	67.73	75.02	74.78	82.13	c 89.83
California	91,332	158,765	221,756	269,736	278,330	63.63	73.37	77.38	79.56	79.16

a Approximate.
b Pupils who attended two weeks or more.
c Pupils of legal school age only.
d In 1900–1901.
e In 1899–1900.
f Highest number enrolled.
g Some missing data supplied.
h Returns imperfect.

TABLE 5.—*The school enrollment of 1901–2 classified by sex—Percentage of the total population enrolled at different dates.*

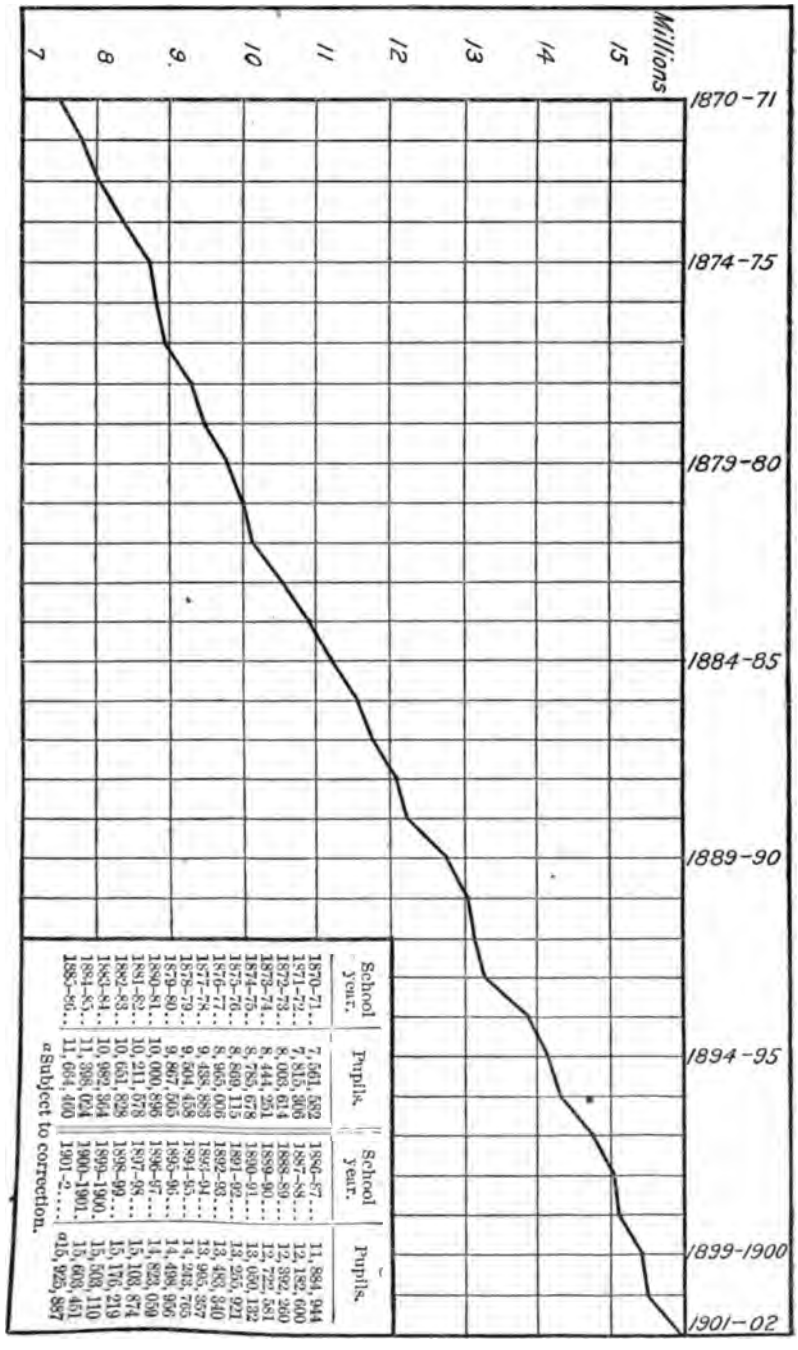
State or Territory.	Number of different pupils of all ages enrolled.			Per cent of the total population enrolled.				
	Boys.	Girls.	Total.	1870–71.	1879–80.	1889–90.	1899–1900.	1901–1902.
1	2	3	4	5	6	7	8	9
United States	[a] 8,009,418	[a] 7,916,469	15,925,887	19.14	19.67	20.32	20.51	20.28
North Atlantic Division	[a] 1,872,442	[a] 1,861,241	3,733,683	21.95	20.20	17.89	17.31	17.12
South Atlantic Division	[a] 1,120,271	[a] 1,159,019	2,279,290	10.05	16.36	20.16	20.90	21.31
South Central Division	[a] 1,584,924	[a] 1,571,666	3,156,590	11.56	15.38	20.90	22.05	21.45
North Central Division	[a] 2,968,396	[a] 2,898,000	5,866,396	24.80	23.23	22.43	22.19	21.80
Western Division	[a] 463,385	[a] 426,543	889,928	13.99	16.32	17.03	19.93	20.15
North Atlantic Division:								
Maine	.....	.....	133,537	24.25	23.09	21.13	18.85	19.06
New Hampshire	[b] 34,105	[b] 33,145	[b] 67,250	22.41	18.54	15.89	15.96	16.05
Vermont	32,303	32,705	65,008	[c] 19.77	22.64	[c] 19.74	19.20	18.79
Massachusetts	.....	.....	[d] 468,188	18.31	17.20	16.59	16.93	[d] 16.39
Rhode Island	34,752	34,605	69,357	15.11	14.69	15.27	15.69	15.38
Connecticut	.....	.....	161,545	20.83	19.22	16.95	17.09	16.91
New York	[e] 639,829	[e] 628,796	1,268,625	23.18	20.30	17.37	16.64	16.80
New Jersey	168,269	168,395	336,664	18.26	18.12	16.20	17.12	16.95
Pennsylvania	580,377	583,132	1,163,509	23.24	21.89	19.41	18.28	17.80
South Atlantic Division:								
Delaware	.....	.....	[f] 36,895	15.79	18.98	18.66	19.98	[f] 19.98
Maryland	.....	.....	[d] 224,004	14.55	17.37	17.68	18.72	[d] 18.60
District of Columbia	22,694	25,738	48,432	11.23	14.88	16.02	16.69	16.73
Virginia	[d] 193,126	[d] 188,435	[d] 381,561	10.47	14.59	20.67	19.99	[d] 20.26
West Virginia	121,904	114,111	236,015	16.85	23.10	25.31	24.23	24.09
North Carolina	[g] 234,212	[g] 230,457	464,669	10.45	18.05	19.93	21.14	23.76
South Carolina	127,822	144,621	272,443	9.05	13.46	17.49	21.03	19.71
Georgia	245,885	257,002	502,887	4.08	15.34	20.75	21.78	22.29
Florida	55,374	57,010	112,384	7.19	14.59	23.63	20.60	20.02
South Central Division:								
Kentucky	251,995	246,994	498,989	13.21	16.74	21.50	23.30	22.58
Tennessee	[d h] 252,991	[d h] 246,019	[d h] 499,010	10.90	19.46	25.34	24.02	[d] 24.41
Alabama	.....	.....	365,171	13.85	14.22	19.93	20.59	19.08
Mississippi	[d] 191,987	[d] 195,501	[d] 387,488	13.70	20.91	25.92	24.92	[d] 24.52
Louisiana	96,958	101,938	198,896	7.73	8.26	10.75	14.20	13.80
Texas	356,831	355,798	712,629	7.26	13.82	20.88	21.64	22.33
Arkansas	172,393	168,302	340,695	13.72	10.21	19.77	23.99	25.18
Oklahoma	67,280	64,311	131,591	.....	.....	.....	25.01	25.32
Indian Territory [i]	11,044	11,077	22,121	.....	.....	.....	.....	4.83
North Central Division:								
Ohio	423,760	408,284	832,044	26.50	22.61	21.72	19.94	19.63
Indiana	284,047	276,177	560,224	26.34	25.85	23.40	22.44	22.16
Illinois	489,109	482,732	971,841	25.99	22.88	20.34	19.89	19.67
Michigan	[d] 255,736	[d] 254,295	[d] 510,031	23.98	22.15	20.39	20.86	[d] 20.86
Wisconsin	[d] 225,350	[d] 220,897	[d] 446,247	24.60	22.76	20.85	21.51	[d] 21.22
Minnesota	.....	.....	414,671	24.47	23.09	21.58	22.79	22.82
Iowa	.....	.....	560,173	28.19	26.23	25.80	25.37	25.09
Missouri	353,223	349,834	703,057	18.74	22.27	23.15	23.17	21.97
North Dakota	43,497	40,180	83,677	9.34	10.15	19.45	24.34	22.51
South Dakota	54,428	51,263	105,691			23.74	24.60	24.69
Nebraska	147,864	141,604	289,468	16.61	20.46	22.69	27.03	26.80
Kansas	197,877	191,395	389,272	22.28	23.23	27.98	26.49	26.18
Western Division:								
Montana	.....	.....	[d e] 42,400	7.54	10.90	12.85	16.20	[d] 16.21
Wyoming	[f] 7,359	[f] 7,153	[f] 14,512	4.55	13.98	11.62	15.68	[f] 15.68
Colorado	64,533	65,836	130,369	9.33	11.38	15.89	21.78	21.34
New Mexico	18,815	15,818	40,184	1.40	3.98	11.86	18.81	18.30
Arizona	9,960	9,243	19,203	0.00	10.42	13.40	13.42	13.77
Utah	37,471	37,107	74,578	18.61	16.90	17.93	26.39	26.07
Nevada	3,491	3,461	6,952	7.04	14.53	16.14	15.77	16.17
Idaho	22,798	23,319	46,117	5.59	17.89	16.96	22.67	25.54
Washington	69,213	67,411	136,624	18.62	19.68	16.02	22.22	22.11
Oregon	[c] 51,009	[c] 49,650	[c] 100,659	21.63	21.47	20.16	21.62	23.65
California	141,415	136,915	278,330	15.61	18.36	18.36	18.16	18.07

[a] Estimated in part.
[b] Pupils who attended two weeks or more.
[c] Pupils of legal school age.
[d] In 1900–1901.
[e] Approximate.
[f] In 1899–1900.
[g] Sex of a few pupils in cities estimated.
[h] Some missing data supplied.
[i] Returns imperfect.

TABLE 6.—*Per cent of the school population (i. e., children 5 to 18 years of age) enrolled in the public schools, for a period of years.*

Year.	United States.	North Atlantic Division.	South Atlantic Division.	South Central Division.	North Central Division.	Western Division.
1870-71	61.45	77.95	30.51	34.17	76.87	54.77
1871-72	62.20	77.83	32.27	37.94	77.04	54.43
1872-73	62.36	76.79	35.86	38.67	75.97	57.52
1873-74	64.40	77.77	42.10	40.82	76.98	61.04
1874-75	65.54	78.59	44.61	42.47	77.54	64.39
1875-76	64.70	78.55	46.72	37.36	77.05	66.37
1876-77	63.92	76.83	47.02	38.51	75.60	66.12
1877-78	65.75	77.09	48.85	43.50	77.38	66.26
1878-79	64.64	76.18	46.72	44.71	75.28	65.63
1879-80	65.50	75.17	50.74	46.43	75.84	64.96
1880-81	65.03	74.28	51.49	47.03	74.59	64.82
1881-82	65.03	74.56	51.90	47.02	74.15	65.93
1882-83	66.39	74.15	54.30	50.68	75.13	67.05
1883-84	66.96	72.83	56.25	53.59	75.06	68.01
1884-85	67.96	73.23	57.17	56.57	75.46	68.53
1885-86	68.14	72.63	57.68	56.82	76.08	68.03
1886-87	67.98	72.23	58.98	56.21	75.77	67.97
1887-88	68.33	71.60	58.68	58.67	75.96	68.53
1888-89	68.20	70.60	58.40	58.28	76.63	69.89
1889-90	68.61	70.45	59.22	60.14	76.46	70.01
1890-91	69.40	70.04	60.15	63.01	76.25	75.49
1891-92	69.51	69.78	59.50	63.72	76.30	77.98
1892-93	69.70	68.99	61.94	63.92	76.23	77.16
1893-94	71.32	70.45	63.08	66.00	78.04	77.45
1894-95	71.54	71.53	62.21	65.83	78.17	79.32
1895-96	71.80	71.57	62.46	66.75	78.16	79.72
1896-97	72.36	72.12	64.49	67.75	78.06	78.27
1897-98	72 68	71.78	66.25	67.36	78.66	78.00
1898-99	71.96	71.69	64.93	66.54	77.75	77.85
1899-1900	72.43	70.86	65.73	67.28	78.65	79.51
1900-1901 [a]	71.26	70.55	66.14	64.55	77.10	78.99
1901-2 [a]	71.54	70.05	67.02	65.37	77.25	80.28

[a] Subject to correction.



School year.	Pupils.	School year.	Pupils.
1870–71	7,561,582	1886–87	11,884,944
1871–72	7,815,806	1887–88	12,182,600
1872–73	8,008,614	1888–89	12,392,260
1873–74	8,444,251	1889–90	12,722,581
1874–75	8,785,678	1890–91	13,050,132
1875–76	8,869,115	1891–92	13,255,921
1876–77	8,965,006	1892–93	13,483,340
1877–78	9,488,883	1893–94	13,965,357
1878–79	9,504,458	1894–95	14,243,765
1879–80	9,867,505	1895–96	14,498,956
1880–81	10,000,895	1896–97	14,823,059
1881–82	10,211,578	1897–98	15,108,874
1882–83	10,651,828	1898–99	15,176,219
1883–84	10,962,364	1899–1900	15,503,110
1884–85	11,398,024	1900–1901	15,603,451
1885–86	11,664,460	1901–2	a15,925,887

a Subject to correction.

DIAGRAM 1.—*Number of pupils enrolled in the common schools of the United States.*

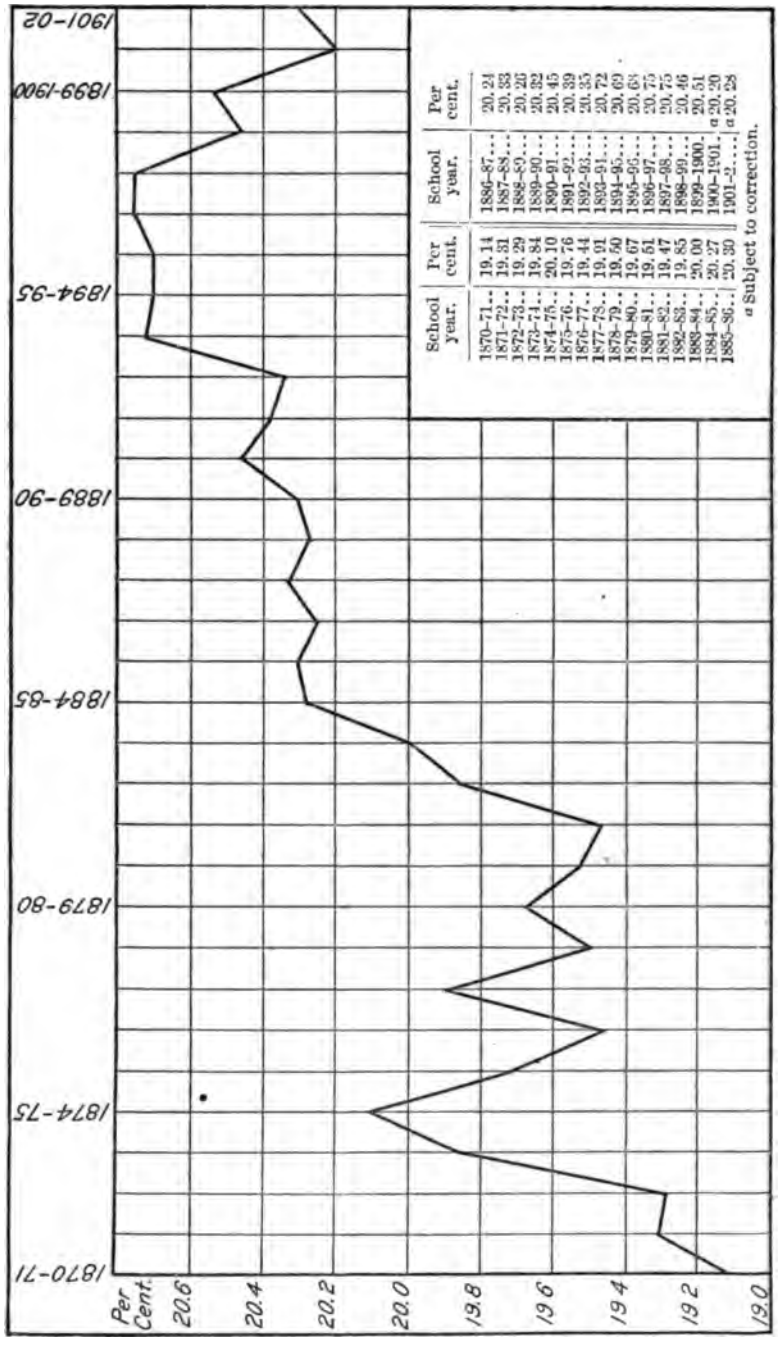


DIAGRAM 2.—*Per cent of the population enrolled in the common schools.*

TABLE 7.—*The average daily attendance at various periods, and its relation in 1901–2 to the enrollment.*

State or Territory.	Average number of pupils actually present at school each day.					Number attending daily for each 100 enrolled in 1901–2.
	1870–71.	1879–80.	1889–90.	1899–1900.	1901–2.	
1	2	3	4	5	6	7
United States	4,545,317	6,144,143	8,153,635	10,632,772	10,999,273	69.07
North Atlantic Division	1,627,208	1,824,487	2,036,459	2,636,892	2,741,360	73.42
South Atlantic Division	368,111	776,798	1,126,683	1,344,334	1,445,797	63.43
South Central Division	535,632	902,767	1,467,649	2,015,457	2,097,819	66.46
North Central Division	1,911,720	2,451,167	3,188,732	4,080,460	4,101,022	69.91
Western Division	102,646	188,924	334,112	555,629	613,275	68.91
North Atlantic Division:						
Maine	100,392	103,115	98,364	97,697	98,918	74.08
New Hampshire	48,150	48,966	41,526	47,276	49,280	73.28
Vermont	a 44,100	48,606	45,887	47,020	49,220	75.71
Massachusetts	201,750	233,127	273,910	366,136	b 371,048	b 79.25
Rhode Island	22,485	27,217	33,905	47,124	50,519	72.84
Connecticut	62,683	73,546	83,656	111,564	118,056	73.08
New York	493,648	573,089	642,984	857,488	908,401	71.61
New Jersey	86,812	115,194	133,286	207,947	223,960	66.52
Pennsylvania	567,188	601,627	682,941	854,640	871,958	74.94
South Atlantic Division:						
Delaware	a 12,700	17,439	19,649	a 25,300	a c 25,300	a c 68.57
Maryland	56,435	85,778	102,351	134,400	b 135,515	b 60.50
District of Columbia	10,261	20,637	28,184	35,463	37,996	78.45
Virginia	77,402	128,404	198,290	216,464	b 225,912	b 59.21
West Virginia	51,336	91,604	121,700	151,254	152,174	64.48
North Carolina	a 73,000	170,100	203,100	206,918	269,003	57.89
South Carolina	a 44,700	a 90,600	147,799	201,295	208,378	76.48
Georgia	31,377	145,190	240,791	298,237	d 315,355	62.71
Florida	a 10,900	27,046	64,819	75,003	76,164	67.77
South Central Division:						
Kentucky	120,866	178,000	225,739	310,339	315,545	63.24
Tennessee	b 89,000	208,528	323,548	338,566	b e 338,091	b 67.75
Alabama	107,666	117,978	182,467	297,805	240,000	65.72
Mississippi	a 90,000	156,761	207,704	224,526	b 227,995	b 58.84
Louisiana	a 40,500	a 54,800	87,536	146,323	140,242	70.51
Texas	a 41,000	a 132,000	291,941	438,779	524,400	73.59
Arkansas	a 46,600	a 54,700	a 148,714	195,401	214,981	63.10
Oklahoma				63,718	83,039	63.10
Indian Territory f					13,526	61.15
North Central Division:						
Ohio	432,452	476,279	549,269	616,365	610,622	73.39
Indiana	295,071	321,659	342,275	429,566	423,078	75.52
Illinois	341,686	431,638	538,310	737,576	765,057	78.72
Michigan	a 193,000	a 240,000	a 282,000	355,226	a b 331,500	b 65.00
Wisconsin	a 132,000	a 156,000	200,457	a 309,800	b 278,803	b 62.48
Minnesota	50,694	a 78,400	127,025	243,224	264,275	63.73
Iowa	211,562	259,836	306,309	373,474	374,103	66.78
Missouri	187,024	a 281,000	384,627	460,012	472,799	67.25
North Dakota	a 1,040	8,530	20,694	43,560	48,987	58.54
South Dakota			48,327	a 68,000	72,846	68.92
Nebraska	a 14,300	60,156	146,139	181,874	185,755	64.17
Kansas	52,891	137,669	243,300	261,783	273,197	70.18
Western Division:						
Montana	a 1,100	a 3,000	10,596	a 26,300	a b 25,900	b 61.08
Wyoming	b 250	1,920	a 4,700	a 9,650	a c 9,650	a c 66.50
Colorado	2,611	12,618	38,715	73,291	82,696	63.43
New Mexico	a 880	3,150	a 13,000	22,433	27,314	67.97
Arizona	0	2,847	4,702	10,177	11,514	59.96
Utah	12,819	17,178	20,967	50,595	53,688	71.99
Nevada	a 1,800	5,401	5,064	4,698	5,014	72.12
Idaho	b 600	3,863	a 9,500	21,962	30,022	65.10
Washington	a 3,300	10,546	36,946	74,717	91,333	66.85
Oregon	a 15,000	27,435	43,333	64,411	66,779	66.34
California	64,286	100,966	146,589	197,395	209,365	75.22

a Approximately.
b In 1900–1901.
c In 1899–1900.
d Cities estimated.
e Some missing data supplied.
f Returns imperfect.

Method of ascertaining average attendance.—The average daily attendance during a year (which is the average number of pupils actually present each day the schools were in session) may be computed as follows:

First, for a single school: Add together the number of pupils present each school day during the year, and divide the sum (which is the "aggregate attendance in days") by the number of such school days.

Second, for a group of schools having the same number of school days in the year (as the schools of most cities have): Divide the combined aggregate attendance in days of all the schools by the number of school days in the year.

Third, for a system of schools having different lengths of school year (as, for instance, those of a county): Add together the average attendance of the component schools and groups of the system, as ascertained by the foregoing rule. For larger systems, as those of a State or of the United States, the summing-up process is continued in the same way.

In a system of schools such as is specified under the heading "Third," the average number of days in the school year for the whole system is found by dividing the combined aggregate attendance in days of all the schools of the system by the average attendance as ascertained by the method given. See observations on Table 8.

Observations on ascertaining the average school term (Table 8).—The "aggregate number of days' schooling given" to all pupils (see column 7), which is the same thing as the aggregate number of days attended by all the pupils, has been computed for those States which do not make an explicit report of this item by multiplying the average daily attendance of pupils by the average length of school term in days.

Conversely, the average length of school term (column 6) for the United States as a whole and for each of its geographical divisions has been obtained by dividing the aggregate number of days attended by the average daily attendance.

By this method the school term of each State, in computing the average term for a number of States, is in fact given a weight proportioned to the school attendance of the State, as should be done under a correct interpretation of the expression, "Average length of school term." The result might more properly be called "Average length of attendance," which is essentially what it is desired to know.

A method which has been in use in some States for finding the average school term of a county, for instance, is to weight the different school terms of the towns or districts the county is composed of by the number of schools in each. In other words, the total number of days (or months) all the schools of a county were kept is divided by the total number of schools to get the average time each one was kept. So, in finding the average term for the State, the school is taken as the unit instead of the pupil. When the schools differ much in size (number of pupils), as they do in all mixed urban and rural systems, varying from some half a dozen to 500 or more pupils each, the average term obtained by this method varies considerably from that obtained by the Bureau's method. The long terms of the large city schools not being given their proper weight, the resulting average is too small. The same objection applies still more forcibly to weighting the school terms of the different counties or towns by the number of school districts in each.

Another method is to divide the total number of months or days taught by the number of teachers. This is better than the preceding method, as it takes some account of the size of the schools—that is, an eight-grade school with eight teachers has eight times the weight, in determining the average term, that a district school with one teacher has. This is manifestly as it should be. If every teacher taught the same number of pupils the result would be the same as by the Bureau's method. Care must be taken in working by this method to use the number of teachers' places (or number of teachers necessary to supply the schools) for the divisor; for if a teacher teaches a school or grade part of the term, and is replaced by another for the rest of the term, the two should obviously count as one teacher for the combined

period of service. The liability to overlook this distinction in practice, as well as the inequality in the number of pupils to a teacher, makes this method generally objectionable.

Still another and most faulty method is to add together the school terms of the different counties or towns and divide by the number of such counties or towns; i. e., the simple arithmetical mean is taken. An example of this occurs in a school report, where it is stated that 14,193 pupils in one district attended 185 days and 856 pupils in another district attended 160 days, while the average time the whole 15,049 pupils attended is computed at 172½ days, although nearly all (16 out of every 17) attended 185 days. This method, if it can be so called, gives altogether too short an average term, and nothing can be said in defense of it. It is as if, wishing to get the population per square mile of Minnesota and Dakota combined, we said, population per square mile of Minnesota, 9.86; of Dakota, 0.92; average number of persons per square mile in the combined territory $(0.92+9.86)\div 2=5.39$, instead of dividing the total population of the two States by the combined area in square miles.

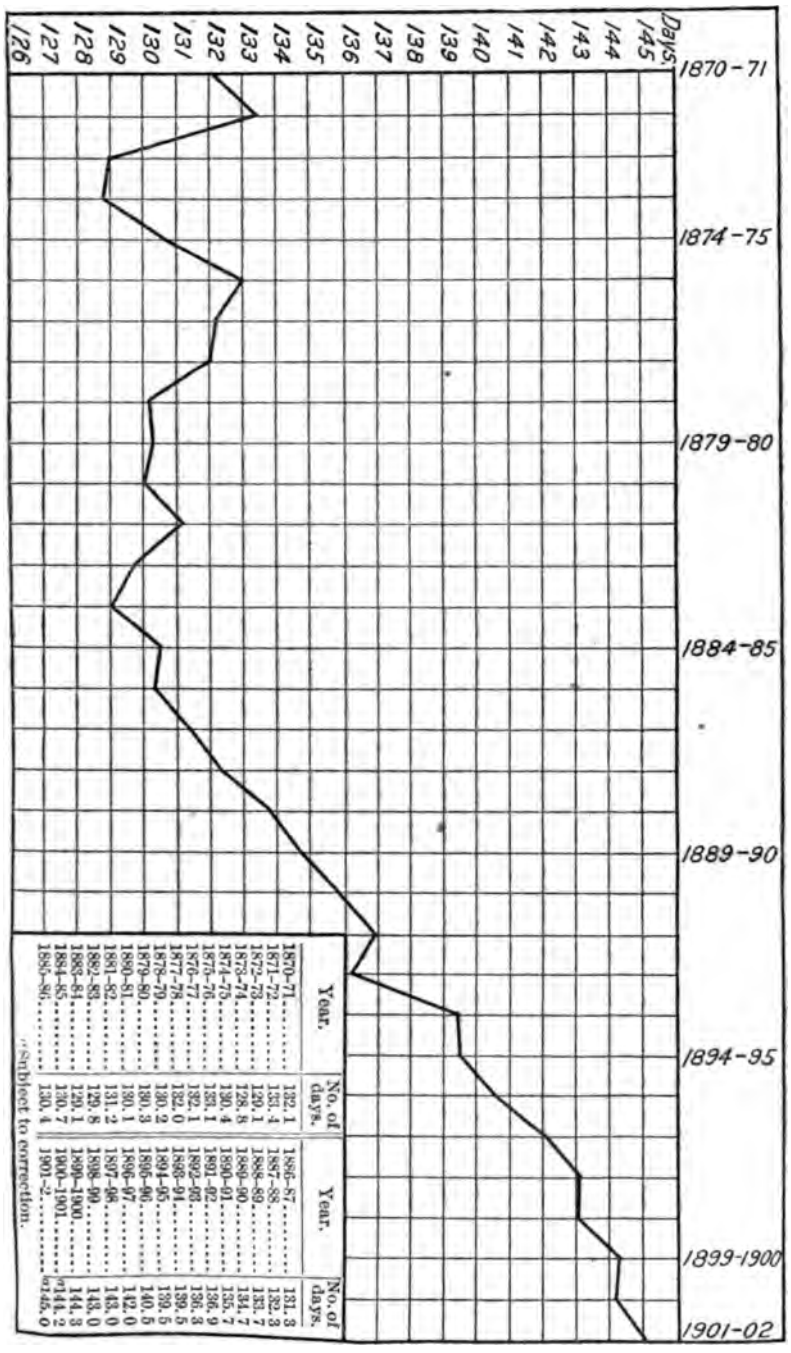
The "aggregate number of days' attendance" is a statistical item of the utmost simplicity and of great value, about the meaning of which there can be little or no difference of opinion. Every teacher's register that records the number of pupils present each day in school, as they all presumably do, contains the data for ascertaining it for that school for the school year by the simple process of addition or summing up.

There are a few States that do not ascertain at all how long their schools were taught, and others that use methods so faulty that they also are totally in the dark in the matter. Yet this is one of the most necessary and fundamental items of information in determining the amount of school instruction given.

TABLE 8.—(1) *Average length of school term at various periods; (2) aggregate number of days' schooling given to all pupils; (3) the same compared with the school population and the enrollment (columns 8 and 9).*

State or Territory.	Average number of days the schools were kept during the year.[a]					Aggregate number of days' schooling given in 1901-2.	Average number of days' schooling given for every child 5 to 18 years of age in 1901-2.	Average number of days attended by each pupil enrolled in 1901-2.
	1870-71.	1879-80.	1889-90.	1899-1900.	1901-2.			
1	2	3	4	5	6	7	8	9
United States	132.1	130.3	134.7	144.3	145.0	1,594,738,835	71.6	100.1
North Atlantic Division	152.0	159.2	166.6	177.5	177.3	485,954,340	91.2	130.2
South Atlantic Division	97.4	92.4	99.9	112.1	115.8	167,412,180	49.2	73.4
South Central Division	91.6	79.2	88.2	99.8	100.6	211,138,596	43.7	66.9
North Central Division	133.9	139.8	148.0	155.9	156.5	641,994,058	84.5	109.4
Western Division	119.2	129.2	135.0	141.5	143.9	88,239,661	79.6	99.2
North Atlantic Division:								
Maine	98	109	112	141	147	14,540,946	89.6	108.9
New Hampshire	70	105.3	117.7	147.65	140.05	6,901,664	76.3	102.6
Vermont	115.6	125.5	136	156.15	154	7,579,927	93.8	116.6
Massachusetts	169	177	177	189	b185	b 68,643,880	b 108.2	b 146.6
Rhode Island	170	184	188	191	192	9,819,420	92.7	141.6
Connecticut	172.4	179	182.5	189.01	188.89	22,299,598	101.8	138.0
New York	176	178.5	186.5	175	177	168,940,699	93.5	133.2
New Jersey	178	192	192	186	186	42,134,395	84.9	125.2
Pennsylvania	127.2	133.4	147.6	166.6	166.4	145,093,811	83.7	124.7
South Atlantic Division:								
Delaware	132	158	166	170.1	c170.1	c d 4,303,530	c 87.9	c 116.6
Maryland	183	187	184	183	b190	b 25,747,850	b 76.6	b 114.9
District of Columbia	200	193	178	179	176	6,687,296	106.3	138.1
Virginia	93.2	112.8	118.2	120	b122	b 27,561,264	b 46.3	b 72.2
West Virginia	76.8	90	97	106	118	17,956,532	59.4	76.1
North Carolina	d 50	50	59.25	70.5	86.9	23,366,983	35.9	50.3
South Carolina	d 100	70	69.6	88.4	87.3	18,188,319	38.0	66.8
Georgia	59	d 65	83.3	112.0	d113	d 35,635,115	47.4	70.9
Florida	.....	.....	120	93	94	7,965,291	45.9	70.9
South Central Division:								
Kentucky	d 110	102	94	117.5	104.3	32,930,655	48.1	66.0
Tennessee	d 77	68	86	96	b 93	b 31,442,463	b 48.1	b 63.0
Alabama	66.5	81.3	73.5	78.3	102.5	24,600,000	38.1	67.4
Mississippi	110	74.5	d 86	101.2	b 97.6	b 22,252,312	b 41.4	b 57.4
Louisiana	d 65	78.8	100.6	120	120	16,829,040	35.9	84.6
Texas	d 140	71.7	100	108.2	101.91	53,374,026	50.0	74.9
Arkansas	.....	.....	d 75	77.5	91.5	19,670,761	43.1	57.7
Oklahoma	.....	.....	.....	95.3	95	7,888,705	48.5	59.9
Indian Territory	.....	.....	.....	.....	159	2,150,634	13.8	97.2
North Central Division:								
Ohio	165	152	166.5	165	165	100,752,630	89.9	121.1
Indiana	98.5	136	130	152	146	61,769,388	88.3	110.3
Illinois	146.7	150	155.4	152	167	127,764,519	94.5	131.5
Michigan	140	150	156	163.8	b164.2	b 54,432,300	b 82.3	b 106.7
Wisconsin	155	165	158.6	f160	b169	b 47,119,014	b 75.5	b 105.6
Minnesota	d 83	94	128	169	153.9	40,671,922	74.5	98.1
Iowa	130	148	156	160	160	59,856,480	94.1	106.9
Missouri	90	d 104	129.4	144	143	67,879,124	72.0	96.5
North Dakota	c 75	d 96	f113	155.7	147.0	7,202,641	64.7	86.1
South Dakota			g145	g129.1	129	9,643,178	72.8	91.2
Nebraska	72	82	140	135	138	30,548,339	93.7	105.5
Kansas	116	120	135	126.25	125.75	34,354,523	77.8	88.3
Western Division:								
Montana	d 89	96	142.7	107	c107	b 3,151,814	b 54.1	b 74.3
Wyoming	d 200	119	d 120	d 110	cd 110	c d 1,064,000	c d 48.1	c d 73.3
Colorado	92	d 132	144.4	149.8	b135	d 11,163,960	74.0	85.6
New Mexico	d 111	111	d 67	g 96.6	85	2,321,690	34.5	57.8
Arizona	0	109	126	125	125	1,439,250	39.9	74.9
Utah	152	128	133	151	147	8,361,636	89.7	112.1
Nevada	142	143	140	154	155.6	780,178	85.2	112.2
Idaho	d 45	94	d 69.8	106	124.2	3,728,732	72.1	80.9
Washington	d 80	d 91	97.2	127.6	116.3	10,622,028	68.0	77.7
Oregon	d 90	90	118.2	116.6	158	10,551,082	94.2	104.8
California	123	146.6	157.6	166.2	167.4	35,055,291	99.7	125.9

[a] Certain States report their school term in months; these months have been reduced to days by multiplying by 20 in each case.
[b] In 1900-1901.
[c] In 1899-1900.
[d] Approximately.
[e] Returns imperfect.
[f] In 1893-94.
[g] In 1897-98.



Year.	No. of days.
1870–71	132.1
1871–72	135.4
1872–73	129.1
1873–74	128.8
1874–75	130.4
1875–76	133.1
1876–77	132.1
1877–78	132.0
1878–79	130.2
1879–80	130.3
1880–81	130.1
1881–82	131.2
1882–83	129.8
1883–84	129.1
1884–85	130.7
1885–86	130.4

Year.	No. of days.
1886–87	131.3
1887–88	132.3
1888–89	133.7
1889–90	134.7
1890–91	135.7
1891–92	136.9
1892–93	136.3
1893–94	139.5
1894–95	139.5
1895–96	140.5
1896–97	142.0
1897–98	143.0
1898–99	143.0
1899–1900	144.3
1900–1901	[1]144.2
1901–2	[1]145.0

[1] Subject to correction.

DIAGRAM 3.—*Length of school term.*

TABLE 9.—*Number and sex of teachers—Percentage of male teachers.*

State or Territory.	Whole number of different teachers employed.			Percentage of male teachers.				
	Male.	Female.	Total.	1870-71.	1879-80.	1889-90.	1899-1900.	1901-2.
1	2	3	4	5	6	7	8	9
United States	122,392	317,204	439,596	41.0	42.8	34.5	29.9	27.8
North Atlantic Division	18,069	90,003	108,072	26.2	28.8	20.0	18.4	16.7
South Atlantic Division	19,567	31,818	51,385	63.8	62.5	49.1	40.7	38.1
South Central Division	30,652	34,848	65,500	67.5	67.2	57.5	47.4	46.8
North Central Division	48,152	139,691	187,843	43.2	41.7	32.4	28.3	25.6
Western Division	5,952	20,844	26,796	45.0	40.3	31.1	24.7	22.2
North Atlantic Division:								
Maine	a 943	a 5,691	6,634	a 24.4	a 27.2	a 16.0	a 16.4	14.2
New Hampshire	207	2,169	2,376	15.0	16.8	9.8	8.9	8.7
Vermont	458	3,448	3,906	16.5	16.8	12.0	13.6	11.7
Massachusetts	b 1,214	b 12,408	b 13,622	12.7	13.2	9.8	8.8	b 8.9
Rhode Island	172	1,830	2,002	a 20.4	20.2	12.6	9.5	8.6
Connecticut	a 389	a 3,929	4,318	a 22.1	a 22.8	a 13.4	a 9.0	9.0
New York	5,060	31,576	36,636	22.9	26.0	16.9	14.9	13.8
New Jersey	1,041	6,897	7,938	32.5	28.5	18.4	12.9	13.1
Pennsylvania	8,585	22,055	30,640	42.8	45.5	34.2	32.0	28.0
South Atlantic Division:								
Delaware	c 210	c 621	c 831	a 29.9	a 46.6	a 31.0	25.3	c 25.3
Maryland	b 1,071	b 3,965	b 5,036	45.0	42.6	27.8	21.7	b 21.3
District of Columbia	171	1,152	1,323	8.2	7.8	13.0	13.1	12.9
Virginia	b 2,701	b 6,307	b 9,008	64.5	61.8	41.5	31.5	b 30.0
West Virginia	3,972	3,334	7,306	79.0	75.2	63.4	57.9	54.4
North Carolina	3,976	4,755	8,731	a 73.2	a 71.3	59.1	49.4	45.5
South Carolina	a 2,537	a 3,295	5,832	62.4	59.5	49.6	a 43.5	43.5
Georgia	d 4,030	d 6,489	10,519	71.4	a 65.2	53.3	44.0	38.3
Florida	899	1,900	2,799	a 65.7	61.6	48.0	36.9	32.1
South Central Division:								
Kentucky	4,638	4,863	9,501	a 66.0	64.6	49.8	45.5	48.8
Tennessee	b 4,896	b 4,588	b 9,484	a 75.0	74.4	61.8	a 54.0	b 51.6
Alabama	3,103	3,200	6,303	66.8	63.8	62.9	30.1	49.2
Mississippi	a b 3,779	a b 4,736	b 8,515	a 60.8	61.2	49.6	44.2	b 40.4
Louisiana	1,346	2,925	4,271	50.9	46.1	44.7	47.9	31.5
Texas	7,051	9,119	16,170	a 77.3	a 75.0	61.1	48.9	43.6
Arkansas	4,386	3,337	7,723	a 75.6	78.4	68.5	59.7	56.8
Oklahoma	1,212	1,703	2,915	.....	.....	.....	42.8	41.6
Indian Territory e	241	377	618	.....	.....	.....	.....	39.0
North Central Division:								
Ohio	9,913	16,497	26,410	43.2	47.8	43.1	40.4	37.5
Indiana	7,006	9,033	16,039	60.5	57.5	51.1	46.2	43.7
Illinois	6,800	20,386	27,186	43.5	39.7	32.5	26.4	25.0
Michigan	b 3,040	b 13,014	b 16,054	26.3	29.2	22.3	20.3	b 18.9
Wisconsin	b 2,243	b 10,913	b 13,156	a 28.8	28.9	19.8	18.4	b 17.0
Minnesota	1,974	10,631	12,605	33.7	35.9	23.9	19.4	15.7
Iowa	4,161	24,912	29,073	39.0	33.6	20.6	17.2	14.3
Missouri	5,562	10,785	16,347	65.3	58.1	44.4	37.6	34.0
North Dakota	1,198	3,385	4,583	a 24.7	a 40.8	28.3	28.8	26.1
South Dakota	1,007	4,045	5,052			29.0	24.4	19.9
Nebraska	1,862	7,767	9,629	51.9	40.7	27.1	21.8	19.3
Kansas	3,386	8,323	11,709	47.2	45.1	40.8	32.7	28.9
Western Division:								
Montana	b 191	b 1,030	b 1,221	a 60.3	38.5	22.9	16.6	b 15.6
Wyoming	c 89	c 481	c 570	a 28.6	44.3	22.4	15.6	c 15.6
Colorado	761	3,186	3,947	48.8	36.4	26.2	20.9	19.3
New Mexico	385	325	710	a 91.7	78.0	a 62.2	a 55.2	54.2
Arizona	118	339	457	.....	47.5	38.8	27.3	25.8
Utah	556	1,037	1,593	55.0	54.5	46.6	36.5	34.9
Nevada	38	281	319	82.4	46.7	16.3	11.1	11.9
Idaho	359	879	1,238	a 64.3	57.4	a 33.4	31.2	29.0
Washington	1,039	3,120	4,159	a 46.5	37.4	40.6	28.9	25.0
Oregon	1,141	3,369	4,510	a 51.7	48.3	43.3	28.4	25.3
California	1,275	6,797	8,072	40.0	33.6	21.4	17.8	15.8

a Approximately. c In 1899-1900. e Returns imperfect.
b In 1900-1901. d Cities estimated.

TABLE 10.—*Teachers' wages—Number of schoolhouses—Value of school property—Private school enrollment.*

State or Territory.	Average monthly salaries of teachers.		Number of buildings used as schoolhouses.[a]	Estimated value of all public school property.	Private schools.*		
	Males.	Females.			Number of pupils enrolled.	Total public and private enrollment.	Per cent of pupils in private schools.
1	2	3	4	5	6	7	8
United States	[b] $49.05	[b] $39.77	254,076	$601,571,307	1,218,600	17,144,487	7.11
North Atlantic Division	[b] 59.01	[b] 40.17	43,467	243,150,033	429,300	4,162,983	10.31
South Atlantic Division	[b] 30.50	[b] 28.60	37,672	25,109,903	126,200	2,405,490	5.25
South Central Division	[b] 44.28	[b] 36.88	51,715	29,875,383	179,800	3,336,390	5.39
North Central Division	50.85	39.60	107,265	250,303,396	430,100	6,296,496	6.83
Western Division	65.90	53.73	13,957	53,132,592	53,200	943,128	5.64
North Atlantic Division:							
Maine	36.05	27.24	3,964	4,728,743	.....	.....	.....
New Hampshire	[c] 43.58	[c] 29.11	1,847	4,155,616	11,543	78,793	14.65
Vermont	40.54	29.13	2,272	[d] 1,800,000	6,401	71,409	8.96
Massachusetts (1900–1901)	110.94	52.75	[c] 4,421	48,979,719	82,325	550,513	14.95
Rhode Island	116.01	51.99	540	5,476,951	18,480	87,837	21.04
Connecticut	99.29	44.51	1,586	11,741,073	35,063	196,608	17.83
New York	.....	.....	11,889	92,207,473	168,057	1,436,682	11.70
New Jersey	87.15	52.06	1,932	18,065,764	[f] 47,453	[f] 370,028	[f] 12.82
Pennsylvania	44.92	33.78	15,016	55,994,694	42,990	1,206,499	3.56
South Atlantic Division:							
Delaware	[g h] 36.60	[g h] 34.08	[f] 550	[f] 1,043,997	.....	.....	.....
Maryland (1900–1901)	.....	.....	2,535	[h] 4,790,000	.....	.....	.....
District of Columbia	[d] 94.48	[d] 64.31	141	4,600,810	[i] 5,000	[i] 47,464	[i] 10.53
Virginia (1900–1901)	32.66	26.46	7,417	3,603,634	21,000	402,561	5.22
West Virginia	.....	.....	6,021	4,561,309	[j] 1,894	[j] 220,709	[j] 0.86
North Carolina	26.77	23.80	7,293	1,469,410	[k] 26,198	[k] 361,556	[k] 7.25
South Carolina	[d] 25.96	[d] 23.20	4,843	[h] 978,000	.....	.....	.....
Georgia	.....	.....	6,536	[y] 2,995,809	[l] 27,285	[l] 442,932	[l] 6.16
Florida	39.68	33.67	2,336	1,066,904	2,000	114,384	1.75
South Central Division:							
Kentucky	50.90	39.18	8,328	5,818,545	19,274	518,263	3.72
Tennessee	.....	.....	[m] 7,241	[m] 3,691,069	[k] 46,428	[k] 532,935	[k] 8.52
Alabama	[f] 31.00	[f] 27.00	[e m] 7,058	2,200,000	[o] 26,722	[o] 388,722	[o] 6.87
Mississippi	[n] 32.18	[n] 26.69	[m p] 6,790	[m h] 1,840,000	[n] 14,021	[n] 381,600	[n] 3.67
Louisiana	36.09	31.14	[e] 3,267	2,450,000	12,905	211,801	6.09
Texas	61.00	49.55	11,326	9,288,557	.....	.....	.....
Arkansas	[q] 36.17	[q] 32.75	5,063	2,901,212	9,680	350,375	2.76
Oklahoma	[o] 31.93	[o] 26.20	2,192	1,618,850	.....	.....	.....
Indian Territory [r]	.....	.....	[e h] 450	[s] 67,150	1,698	23,819	7.13
North Central Division:							
Ohio	42.00	37.00	13,135	48,257,961	27,133	859,177	3.16
Indiana	66.80	48.00	9,987	24,182,062	[m] 4,500	[m] 561,231	[m] 0.80
Illinois	64.55	54.18	12,865	52,764,922	144,471	1,116,312	12.94
Michigan (1900–1901)	48.68	36.68	8,066	20,404,388	53,046	563,077	9.42
Wisconsin (1900–1901)	53.33	39.52	7,179	16,574,795	55,789	502,036	11.11
Minnesota	53.56	37.21	8,598	19,433,862	[t] 20,073	[t] 372,165	[t] 5.39
Iowa	43.66	30.17	13,931	18,989,923	[m] 43,715	[m] 606,377	[m] 7.21
Missouri	42.67	42.89	10,320	21,210,897	17,671	720,728	2.45
North Dakota	42.70	37.14	2,885	2,899,184	.....	.....	.....
South Dakota	40.03	33.52	4,380	3,643,384	[j] 1,888	[j] 89,914	[j] 2.10
Nebraska	49.15	38.51	6,813	10,281,548	.....	.....	.....
Kansas	44.24	36.55	9,106	11,660,470	.....	.....	.....
Western Division:							
Montana (1900–1901)	73.86	50.11	712	7,400,250	1,816	44,216	4.11
Wyoming (1899–1900)	73.68	43.36	524	453,607	[t] 175	[t] 11,428	[t] 1.53
Colorado	69.97	53.05	1,831	6,950,868	2,515	132,884	1.89
New Mexico	64.77	64.77	710	1,125,698	4,553	44,737	10.18
Arizona	85.51	71.75	[u] 275	654,942	1,531	20,734	7.38
Utah	66.81	48.12	712	3,220,160	[m] 2,814	[m] 79,345	[m] 3.55
Nevada	100.84	61.58	[e] 273	304,690	[v] 343	7,295	4.70
Idaho	[d] 56.11	[d] 44.83	836	1,459,092	.....	.....	.....
Washington	[m] 54.79	[m] 45.85	2,262	6,896,407	4,892	141,516	3.46
Oregon	47.58	37.61	2,125	3,561,737	7,416	108,075	6.86
California	87.01	67.19	[w] 3,697	21,105,141	[x] 24,350	302,680	8.04

* The reports of private schools are more or less incomplete, and the number of pupils as given may be taken to represent the minimum number of private pupils in the States furnishing this item. In forming the totals the States not reporting are estimated.

[a] Including buildings rented.

[b] Average for those States reporting salaries.

[c] High-school teachers' wages not included.

[d] In 1897–98.

[e] Number of schools.

[f] In 1899–1900.

[g] In 1889–90.

[h] Approximately.

[i] In 1895–96.

[j] In 1893–94.

[k] In 1891–92.

[l] In 1892–93.

[m] In 1900–01.

[n] In 1896–97.

[o] In 1898–99.

[p] Number of schools, not including those in separate districts.

[q] Excluding the wages of teachers holding State certificates.

[r] Returns imperfect.

[s] "Public-school" property only.

[t] In 1894–95.

[u] Number of school districts.

[v] Reported by school census enumerators as attending private schools.

[w] Does not include high-school buildings.

[x] Includes only children 5 to 17 (as reported by school census enumerators) who have attended private but not public schools during the year.

[y] Not including furniture and apparatus.

Average salaries.—In computing (for Table 10) the average monthly wages of all the male (or female) teachers in the several groups of States the average wages of each of the States in question is multiplied by the corresponding number of teachers. The sum of the resulting products is then divided by the sum of the teachers, and the quotient is the average wages of all. Each rate of wages thus receives its due weight.

To illustrate: If 48 teachers receive an average of $72.20 per month, they all receive in a month $3,466; if 473 other teachers receive an average of $48.60 per month, these together receive in a month $22,988; the 521 teachers combined, therefore, receive per month $26,454, or an average of $50.77.

Attention is called to this subject for the reason that the practice of taking the arithmetical mean of a number of rates of wages (the mean is $60.40 in the above case) in order to get the average of all is so common as to vitiate, to a considerable extent, the published statistics of average wages.

TABLE 11.—(*1*) *Length of school term.* (*2*) *The aggregate number of days' schooling given compared with the school population.*

Year.	Average length of school term, in days.						Average number of days' schooling given for every child 5 to 18 years of age.					
	The United States.	North Atlantic Division.	South Atlantic Division.	South Central Division.	North Central Division.	Western Division.	The United States.	North Atlantic Division.	South Atlantic Division.	South Central Division.	North Central Division.	Western Division.
1870–71	132.1	152.0	97.4	91.6	133.9	119.2	48.7	70.2	18.1	21.8	59.6	45.9
1871–72	133.4	151.9	103.4	97.7	136.1	121.8	49.5	68.9	20.3	25.8	59.8	46.0
1872–73	129.1	154.6	97.4	89.1	129.6	118.3	47.8	67.9	21.7	23.4	56.8	45.0
1873–74	128.8	154.8	95.6	81.1	132.6	119.0	49.6	70.4	24.5	21.9	59.8	46.1
1874–75	130.4	158.7	95.2	81.0	134.6	132.5	51.0	72.9	26.1	23.5	60.2	53.6
1875–76	133.1	168.0	95.6	82.5	139.1	130.3	51.4	73.7	26.8	20.1	62.2	54.4
1876–77	132.1	157.2	91.4	80.3	139.8	130.1	51.1	73.6	26.3	19.8	62.3	54.3
1877–78	132.0	157.6	89.7	86.7	140.1	129.9	53.2	75.6	26.8	24.3	64.3	54.5
1878–79	130.2	160.1	88.6	81.9	136.4	132.0	52.0	75.0	25.7	23.9	62.3	56.7
1879–80	130.3	159.2	92.4	79.2	139.8	129.2	53.1	74.5	29.3	24.2	64.4	54.9
1880–81	130.1	158.7	92.4	82.1	138.8	133.8	52.0	72.2	28.5	25.0	62.7	56.9
1881–82	131.2	160.6	95.9	82.5	137.1	136.2	52.9	73.3	30.6	25.6	63.2	58.0
1882–83	129.8	161.0	95.9	82.5	137.1	132.6	53.8	74.4	32.0	26.8	63.9	57.3
1883–84	129.1	156.0	95.6	85.9	138.6	133.8	55.5	72.5	32.7	30.0	67.7	61.6
1884–85	130.7	163.1	93.4	87.5	139.1	131.8	56.8	77.2	33.7	31.4	67.3	58.3
1885–86	130.4	161.6	93.4	86.9	140.4	130.8	57.3	76.7	33.7	32.0	68.7	59.6
1886–87	131.3	165.9	95.3	87.5	139.5	131.6	57.7	77.8	34.8	32.1	68.7	59.1
1887–88	132.3	164.4	95.7	87.6	144.0	130.7	58.7	76.8	35.5	33.6	71.3	57.3
1888–89	133.7	164.1	95.0	88.9	147.5	135.7	58.9	76.7	35.4	34.0	71.6	61.7
1889–90	134.7	166.6	99.9	88.2	148.0	135.0	59.2	76.8	37.3	33.9	71.9	61.2
1890–91	135.7	168.1	103.8	92.0	145.8	136.9	60.7	78.1	38.1	35.8	73.2	65.9
1891–92	136.9	169.1	105.3	94.1	146.8	139.1	61.5	78.3	38.2	37.7	73.6	71.1
1892–93	136.3	169.6	103.4	93.0	146.6	138.8	62.3	78.7	39.2	37.5	75.1	70.8
1893–94	139.5	172.3	108.3	97.5	150.2	137.1	65.9	82.2	42.4	41.3	79.1	72.4
1894–95	139.5	172.8	106.5	92.8	150.8	142.4	66.9	84.8	42.0	39.0	81.0	77.6
1895–96	140.5	175.5	107.8	92.2	151.9	142.0	68.1	86.8	42.1	39.8	82.3	78.7
1896–97	142.0	178.3	110.9	96.3	152.8	148.6	69.7	88.9	43.0	42.3	83.1	82.5
1897–98	143.0	174.3	113.8	97.4	152.8	151.7	71.2	90.4	46.9	42.5	84.8	82.1
1898–99	143.0	174.0	112.3	98.4	154.5	141.6	70.0	90.0	43.6	43.3	83.3	76.3
1899–1900	144.3	177.5	112.1	99.8	155.0	141.5	71.8	91.0	45.4	44.8	85.7	76.7
1900–1901 *a*	144.2	177.2	112.1	96.4	157.5	143.0	70.4	90.3	46.7	41.4	84.3	77.1
1901–2 *a*	145.0	177.3	115.8	100.6	156.5	143.9	71.6	91.2	49.2	43.7	84.5	79.6

a Subject to correction.

TABLE 12.—*School moneys received.*

State or Territory.	Income of permanent school funds and rent of school lands.	From taxation.			From other sources, State and local.	Total revenue (excluding balances on hand and proceeds of bond sales).
		From State taxes.	From local taxes.	Total from taxation.		
1	2	3	4	5	6	7
United States	$10,522,343	$38,380,589	$170,779,586	$209,110,175	$29,742,141	$249,374,659
North Atlantic Division	954,097	12,831,775	69,984,121	82,815,896	10,847,513	94,617,506
South Atlantic Division	516,482	5,148,670	7,842,256	12,990,926	1,150,194	14,657,902
South Central Division	2,442,774	6,398,383	6,869,991	13,268,374	1,147,567	16,858,715
North Central Division	5,805,330	8,374,009	74,215,693	82,589,702	14,781,748	103,176,780
Western Division	803,660	5,577,752	11,867,525	17,445,277	1,814,819	20,063,756
North Atlantic Division:						
Maine	64,607	535,896	1,196,419	1,732,315	0	1,796,922
New Hampshire	13,814	54,729	887,372	942,101	73,276	1,029,191
Vermont	49,502	88,795	839,474	928,269	70,374	1,048,145
Massachusetts (1900–1901)	160,546	[a] 108,750	13,800,359	13,909,109	123,105	14,192,760
Rhode Island	15,223	132,684	1,540,890	1,673,574	69,627	1,758,424
Connecticut	144,541	348,449	2,763,368	3,111,817	187,586	3,443,944
New York [b]	272,477	3,871,443	27,062,750	30,934,193	[c] 6,530,984	37,737,654
New Jersey	233,387	2,518,687	4,317,550	6,836,237	48,624	7,118,248
Pennsylvania	0	5,172,342	[d] 17,575,939	22,748,281	3,743,937	26,492,218
South Atlantic Division:						
Delaware (1899–1900)	[e] 117,379	89,432	175,735	265,167	25,030	407,576
Maryland (1900–1901)	53,357	716,243	1,665,523	2,381,766	170,156	2,605,279
District of Columbia	0	0	[f] 1,734,371	1,734,371	0	1,734,371
Virginia (1900–1901)	48,886	989,187	985,877	1,975,364	60,398	2,084,648
West Virginia	53,995	406,431	1,693,611	2,100,042	138,552	2,292,589
North Carolina	0	1,098,193	185,973	1,284,166	200,755	1,484,921
South Carolina	0	716,012	164,171	880,183	99,419	979,602
Georgia	212,052	1,050,014	562,722	1,612,736	441,637	2,266,425
Florida	30,813	82,858	[g] 674,273	757,131	14,547	802,491
South Central Division:						
Kentucky (1900–1901)	[h]	[i] 1,857,719	932,866	2,790,585	225,589	3,016,174
Tennessee (1900–1901)	133,292	0	1,631,589	1,631,589	114,103	1,878,984
Alabama	154,238	806,580	[j]	806,580	1,753	962,571
Mississippi (1900–1901)	186,226	722,296	[g] 532,676	1,254,972	69,280	1,510,478
Louisiana	61,000	322,413	742,945	1,065,358	105,373	1,231,731
Texas	1,676,462	2,199,357	1,233,514	3,432,871	174,093	5,283,426
Arkansas	[k]	490,018	[g] 1,110,325	1,600,343	40,703	1,641,046
Oklahoma	[l] 231,556	0	620,014	620,014	45,465	897,035
Indian Territory [m]	0	0	[n] 66,062	66,062	[o] 371,208	437,270
North Central Division:						
Ohio	249,160	1,817,768	12,149,340	13,967,108	782,110	14,998,378
Indiana	[b] 562,190	[b] 1,067,115	5,731,817	7,398,932	621,233	8,585,355
Illinois	845,366	934,108	18,062,573	18,996,681	7,744,250	27,586,297
Michigan (1900–1901)	333,822	1,102,616	5,932,794	7,035,410	879,402	8,248,634
Wisconsin (1900–1901)	167,391	630,000	4,714,298	5,344,298	652,882	6,164,571
Minnesota	[b] 600,000	[b] 828,123	4,046,018	4,874,141	[p] 1,530,525	7,004,666
Iowa	854,188	0	8,105,667	8,105,667	882,026	9,841,881
Missouri	638,833	1,188,290	5,855,991	7,044,281	430,395	8,113,509
North Dakota	[q] 288,128	0	1,337,807	1,337,807	83,976	1,709,911
South Dakota	357,527	0	1,600,259	1,600,259	68,730	2,026,516
Nebraska	[r] 23,731	205,989	2,684,024	2,890,013	961,929	4,375,673
Kansas	[r] 384,994	0	3,995,105	3,995,105	141,290	4,521,389
Western Division:						
Montana (1900–1901)	35,153	747,050	86,085	833,135	235,528	1,103,816
Wyoming (1899–1900)	43,265	0	223,266	223,266	25,223	291,754
Colorado	139,131	0	2,697,836	2,697,836	457,283	3,294,250
New Mexico (1900–1901) [b]	6,857	148,987	[h]	148,987	[g] 88,637	244,481
Arizona	0	22,951	233,678	256,629	80,743	337,372
Utah	[k]	405,435	876,788	1,282,223	131,794	1,414,017
Nevada	123,072	10,905	101,229	112,134	17	235,223
Idaho	67,615	0	506,346	506,346	91,862	665,823
Washington	[s]	[t] 1,265,266	1,366,588	2,631,854	39,630	2,671,484
Oregon	169,875	0	1,874,968	1,874,968	112,105	2,156,948
California	218,692	[g] 2,977,158	3,900,741	6,877,899	[u] 551,997	7,648,588

[a] Reimbursement for superintendents' and teachers' salaries, high school tuition, and schooling State wards.
[b] Approximately.
[c] Includes receipts from sale of bonds.
[d] Includes receipts from "other sources" in Philadelphia, if any.
[e] May include some State taxes.
[f] Includes United States appropriation.
[g] Includes poll tax.
[h] Not reported separately.
[i] From State treasury.
[j] Not reported.
[k] Included, if any, in State taxes.
[l] Apportionment of Territorial and county school fund.
[m] Returns imperfect.
[n] For "public schools."
[o] Some funds from taxation may be included.
[p] Includes proceeds of bonds sold.
[q] State tuition fund.
[r] Includes some receipts from "other sources."
[s] Included in State taxes.
[t] Includes income from State school fund.
[u] Includes taxes on railroads ($105,504), and on collateral inheritances ($287,053).

TABLE 13.—*The school revenue compared with the school population and the adult male population (21 years and upward); percentage analysis of the school revenue.*

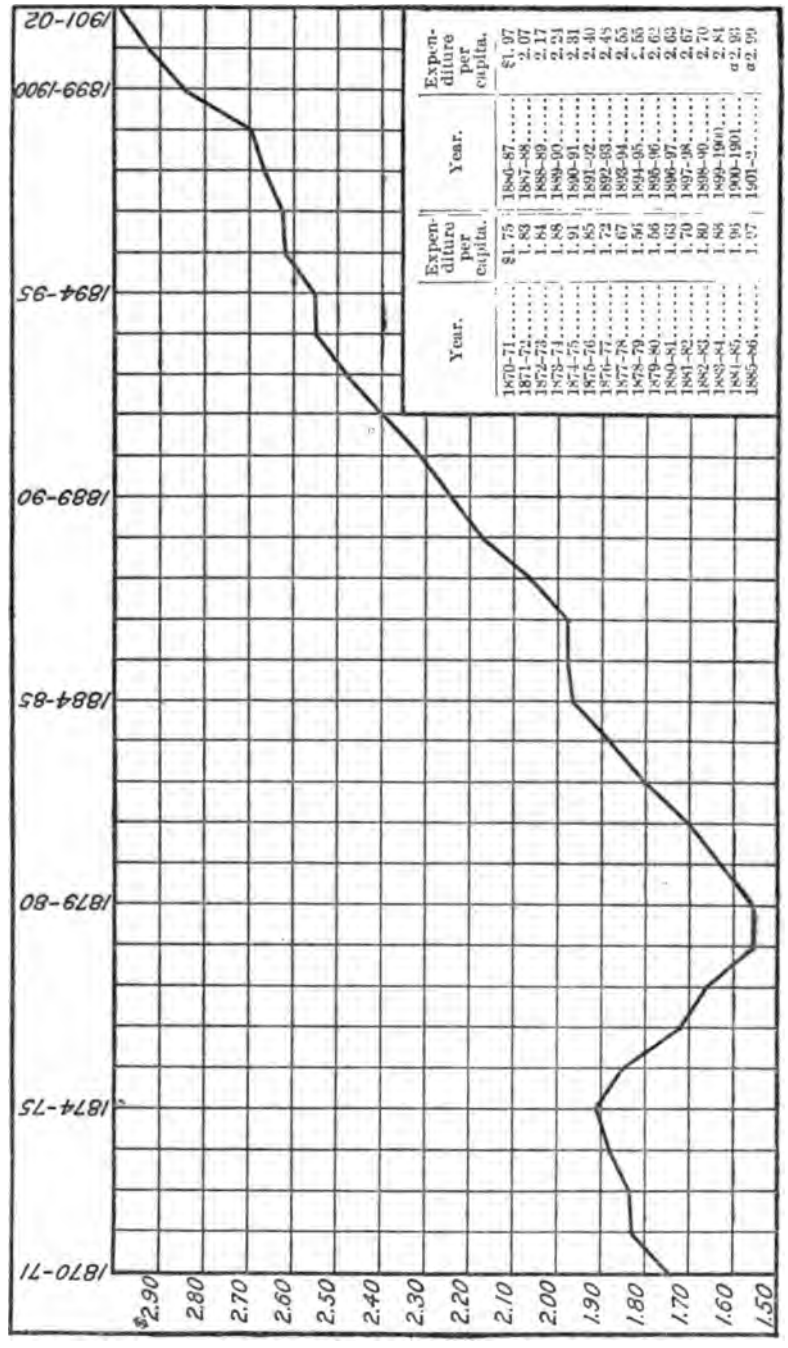
State or Territory.	Amount raised for each person 5 to 18 years of age.	Amount raised per adult male.	Amount each adult male must contribute to provide $1 for each person 5–18 years.	Per cent of the whole revenue derived from—			
				Permanent funds and rents.	State taxes.	Local taxes.	Other sources.
1	2	3	4	5	6	7	8
United States	$11.20	$11.41	$1.02	4.2	15.4	68.5	11.9
North Atlantic Division	17.75	14.58	.82	1.0	13.5	74.0	11.5
South Atlantic Division	4.31	5.73	1.33	3.5	35.1	53.5	7.9
South Central Division	8.49	4.77	1.37	14.5	38.0	40.7	6.8
North Central Division	13.59	13.38	.98	5.6	8.1	72.0	14.3
Western Division	18.10	12.83	.71	4.0	27.8	59.2	9.0
North Atlantic Division:							
Maine	11.07	8.18	.74	3.6	29.8	66.6	0.0
New Hampshire	11.38	7.72	.68	1.4	5.3	86.2	7.1
Vermont	12.97	9.61	.74	4.7	8.5	80.1	6.7
Massachusetts (1900–1901)	22.37	16.53	.74	1.1	[a] 0.8	97.2	0.9
Rhode Island	16.60	13.14	.79	0.9	7.5	87.6	4.0
Connecticut	15.72	11.68	.74	4.2	10.1	80.2	5.5
New York [b]	[c] 20.88	[c] 16.62	.80	0.7	10.3	71.7	[c] 17.3
New Jersey	14.34	12.15	.85	3.3	35.4	60.6	0.7
Pennsylvania	15.28	14.06	.92	0.0	19.5	[d] 66.4	14.1
South Atlantic Division:							
Delaware (1899–1900)	8.32	7.55	.91	[e] 28.8	22.0	43.1	6.1
Maryland (1900–1901)	7.75	7.99	1.03	2.1	27.5	63.9	6.5
District of Columbia	27.57	19.92	.72	0.0	0.0	[f] 100.0	0.0
Virginia (1900–1901)	3.50	4.58	1.31	2.3	47.5	47.3	2.9
West Virginia	7.59	9.05	1.19	2.4	17.7	73.9	6.0
North Carolina	2.28	3.44	1.51	0.0	74.0	12.5	13.5
South Carolina	2.05	3.35	1.64	0.0	73.1	16.8	10.1
Georgia	3.01	4.45	1.48	9.4	46.3	24.8	19.5
Florida	4.62	5.41	1.17	3.9	10.3	[g] 84.0	1.8
South Central Division:							
Kentucky (1900–1901)	4.41	5.39	1.22	[h]	[i] 61.6	30.9	7.5
Tennessee (1900–1901)	2.87	3.81	1.33	7.2	0.0	84.5	8.3
Alabama	1.50	2.22	1.47	16.0	83.8	0.0	0.2
Mississippi (1900–1901)	2.81	4.25	1.51	9.8	49.6	[g] 37.3	3.3
Louisiana	2.63	3.62	1.38	4.9	26.2	60.3	8.6
Texas	4.95	6.84	1.38	31.7	41.6	23.4	3.3
Arkansas	3.59	5.07	1.41	[j]	29.9	[g] 67.6	2.5
Oklahoma	5.51	6.30	1.14	[k] 25.8	0.0	69.1	5.1
Indian Territory [l]	2.80	3.85	1.37	0.0	0.0	[m] 15.1	[q] 84.9
North Central Division:							
Ohio	13.38	12.13	.91	1.7	12.1	81.0	5.2
Indiana	12.27	11.87	.97	[b] 6.5	[b] 19.4	66.8	7.3
Illinois	20.40	19.21	.94	3.0	3.4	65.5	28.1
Michigan (1900–1901)	12.47	11.35	.91	17.4	0.0	71.9	10.7
Wisconsin (1900–1901)	9.88	10.63	1.08	2.7	10.2	76.5	10.6
Minnesota	[c] 12.83	[c] 13.02	1.02	[b] 8.6	[b] 11.8	57.8	[o] 21.8
Iowa	15.47	15.48	1.00	8.7	0.0	82.3	9.0
Missouri	8.61	9.19	1.07	7.9	14.6	72.2	5.3
North Dakota	15.35	15.42	1.00	16.9	0.0	78.2	4.9
South Dakota	15.29	16.87	1.10	17.6	0.0	79.0	3.4
Nebraska	13.42	14.35	1.07	12.0	4.7	61.3	22.0
Kansas	10.24	10.81	1.06	[n] 8.5	0.0	88.4	3.1
Western Division:							
Montana (1900–1901)	18.95	10.07	.53	3.2	67.7	7.8	21.3
Wyoming (1899–1900)	13.20	7.70	.58	14.8	0.0	76.5	8.7
Colorado	21.83	15.66	.72	4.2	0.0	81.9	13.9
New Mexico [b]	3.61	3.95	1.09	2.8	60.9	[h]	[q] 36.3
Arizona	9.35	6.74	.72	0.0	6.8	69.3	23.9
Utah	15.17	20.36	1.34	[j]	28.7	62.0	9.3
Nevada	25.70	13.07	.51	52.3	4.7	43.0	0.0
Idaho	12.88	11.06	.86	10.2	0.0	76.0	13.8
Washington	17.10	11.45	.67	[o]	[p] 47.4	51.1	1.5
Oregon	19.25	14.51	.75	7.9	0.0	86.9	5.2
California	21.75	13.55	.62	2.9	[q] 38.9	51.0	7.2

[a] Reimbursement for superintendents' and teachers' salaries, etc.
[b] Approximately.
[c] Includes receipts from sale of bonds.
[d] Includes receipts from "other sources" in Philadelphia, if any.
[e] May include some State taxes.
[f] Includes United States appropriation.
[g] Includes poll tax.
[h] Not reported separately.
[i] From the State treasury.
[j] Included, if any, in State taxes.
[k] Apportionment of Territorial and county school fund.
[l] Returns imperfect.
[m] For "public" schools.
[n] Includes some receipts from "other sources."
[o] Included in State taxes.
[p] Includes income from State school fund.
[q] Some funds from taxation may be included.

TABLE 14.—*Progress of school expenditure.*

State or Territory.	Total amount expended for schools.					Expended per capita of total population.				
	1870–71.	1879–80.	1889–90.	1899–1900.	1901–2.	1870–71.	1879–80.	1889–90.	1899–1900.	1901–2.
1	2	3	4	5	6	7	8	9	10	11
United States	$69,107,612	$78,094,687	$140,506,715	$214,964,618	$235,208,465	$1.75	$1.56	$2.24	$2.84	$2.99
N. Atlantic Div.	29,796,835	28,538,058	48,023,492	83,910,564	91,242,162	2.38	1.97	2.76	3.99	4.18
S. Atlantic Div.	3,781,581	5,130,492	8,767,165	12,921,797	14,159,390	.63	.68	.99	1.24	1.32
S. Central Div.	4,854,834	4,872,829	10,678,680	14,753,816	16,780,141	.73	.55	.97	1.08	1.14
N. Central Div.	28,430,033	35,285,635	62,823,563	86,165,827	93,654,876	2.14	2.03	2.81	3.27	3.48
Western Div.	2,244,329	4,267,673	10,213,815	17,212,614	19,371,896	2.15	2.41	3.37	4.21	4.39
N. Atlantic Div.:										
Me	950,662	1,067,991	1,327,553	1,712,795	1,794,505	1.51	1.65	2.01	2.47	2.56
N. H	418,545	565,339	844,333	1,052,202	1,167,464	1.30	1.63	2.24	2.56	2.79
Vt	499,961	446,217	711,072	1,074,222	1,093,942	1.51	1.34	2.14	3.13	3.16
Mass	5,579,363	4,983,900	8,286,062	13,826,243	a 14,179,947	3.73	2.80	3.70	4.93	a4.96
R. I	461,160	526,112	884,966	1,548,675	1,708,412	2.05	1.90	2.56	3.61	3.79
Conn	1,496,981	1,408,375	2,157,014	3,189,249	3,556,442	2.74	2.26	2.89	3.51	3.72
N. Y	9,607,904	10,296,977	17,543,880	33,421,491	b 37,737,654	2.17	2.03	2.92	4.60	b5.00
N. J	2,302,341	1,873,465	3,340,190	6,608,692	6,976,118	2.48	1.66	2.31	3.51	3.51
Pa	8,479,918	7,369,682	12,928,422	21,476,995	23,027,678	2.36	1.72	2.46	3.41	3.52
S. Atlantic Div.:										
Del	153,509	207,281	b 275,000	453,670	c 453,670	1.21	1.41	b1.63	2.46	c2.46
Md	1,214,729	1,544,367	1,910,663	2,803,032	a 2,549,497	1.53	1.65	1.83	2.36	a2.12
D. C	373,535	438,567	905,777	1,076,620	1,694,255	2.77	2.47	3.93	3.86	5.85
Va	587,472	946,109	1,604,509	1,989,238	a 2,012,359	.47	.63	.97	1.07	a1.07
W. Va	577,719	707,553	1,198,493	2,009,123	2,199,350	1.26	1.14	1.57	2.10	2.24
N. C	177,498	376,062	714,900	950,317	1,287,276	.16	.27	.44	.50	.66
S. C	275,688	324,629	450,936	894,004	985,394	.38	.33	.39	.67	.71
Ga	292,000	471,029	1,190,354	1,980,016	2,184,670	.24	.31	.65	.89	.97
Fla	129,431	114,895	516,533	765,777	792,919	.66	.43	1.32	1.45	1.41
S. Central Div.:										
Ky	b 1,075,000	1,069,030	2,140,678	3,037,908	a 2,851,651	b .80	.65	1.15	1.41	a1.29
Tenn	b 758,000	744,180	1,526,241	1,751,047	a 1,811,454	b .59	.48	.86	.87	a .89
Ala	b 370,000	b 500,000	b 890,000	923,464	1,057,906	b .36	b .40	b .59	.50	.55
Miss	950,000	830,705	1,109,575	1,385,112	a 1,472,433	1.11	.73	.86	.89	a .93
La	531,834	411,858	817,110	1,135,125	1,236,648	.71	.44	.73	.82	.86
Tex	b 650,000	b 1,030,000	3,178,300	4,465,255	5,216,672	b .74	b .65	1.42	1.46	1.63
Ark	b 520,000	287,056	1,016,776	1,369,810	1,592,110	b 1.02	.36	.90	1.04	1.18
Okla	.....	.....	.....	686,095	1,116,231	.....	.....	.....	1.72	2.15
Ind. T	.....	.....	.....	.....	d 425,036	.....	.....	.....	.....	d .93
N. Central Div.:										
Ohio	6,831,035	7,166,963	10,602,238	13,335,211	14,868,999	2.52	2.24	2.89	3.21	3.51
Ind	b 2,897,537	4,491,850	5,245,218	8,182,526	9,216,082	b 1.70	2.27	2.39	3.25	3.65
Ill	6,656,542	7,014,092	11,645,126	17,767,145	19,025,258	2.57	2.28	3.04	3.68	3.85
Mich	2,840,740	2,775,917	5,349,366	7,297,691	a 7,965,700	2.33	1.70	2.55	3.01	a3.26
Wis	1,932,589	2,177,023	3,801,212	5,493,370	a 5,881,473	1.70	1.65	2.25	2.65	a2.80
Minn	960,558	1,328,429	4,187,310	5,630,013	6,697,589	2.06	1.70	3.22	3.21	3.60
Iowa	3,269,190	4,484,043	6,382,953	8,496,522	9,213,709	2.70	2.76	3.34	3.81	4.13
Mo	1,749,049	2,675,364	5,434,262	7,816,050	8,169,288	.99	1.23	2.03	2.52	2.55
N. Dak	b 23,000	245,000	626,949	1,526,090	1,677,874	b 1.29	1.81	3.43	4.78	4.51
S. Dak			1,199,630	1,605,623	1,847,813			3.65	4.00	4.32
Nebr	365,520	1,108,617	3,376,332	4,403,222	4,286,528	2.61	2.45	3.19	4.13	3.97
Kans	904,323	1,818,337	4,972,967	4,622,364	4,804,563	2.24	1.83	3.48	3.14	3.23
Western Div.:										
Mont	b 35,600	78,730	364,084	923,310	a 879,882	b 1.62	2.01	2.76	3.79	a3.36
Wyo	b 7,000	28,504	b 225,000	253,551	c 253,551	b .71	1.37	b3.71	2.74	c2.74
Colo	67,395	395,227	1,681,379	2,793,648	3,100,855	1.44	2.03	4.08	5.18	5.08
N. Mex	b 4,900	28,973	b 85,000	343,429	a 241,227	b .05	.24	b .55	1.76	a1.09
Ariz	0	61,172	181,914	299,730	376,685	.....	1.51	3.05	2.44	2.70
Utah	b 117,000	132,194	394,685	1,094,757	1,399,186	b 1.28	.92	1.90	3.96	4.89
Nev	b 85,000	220,245	161,481	224,622	209,484	b 1.93	3.54	3.53	5.30	4.87
Idaho	19,003	38,411	169,020	400,043	689,636	1.17	1.18	2.00	2.47	3.82
Wash	b 35,000	112,615	958,111	2,375,753	2,805,455	b 1.30	1.50	2.74	4.59	4.54
Oreg	b 160,000	307,031	805,979	1,594,420	1,802,227	b 1.65	1.76	2.57	3.86	4.23
Cal	1,713,431	2,864,571	5,187,162	6,909,351	7,613,708	2.93	3.31	4.29	4.65	4.94

a In 1900–1901. b Approximately. c In 1899–1900. d Returns imperfect.



Year.	Expenditure per capita.	Year.	Expenditure per capita.
1870-71	$1.75	1886-87	$1.97
1871-72	1.83	1887-88	2.07
1872-73	1.84	1888-89	2.17
1873-74	1.88	1889-90	2.24
1874-75	1.91	1890-91	2.31
1875-76	1.85	1891-92	2.40
1876-77	1.72	1892-93	2.48
1877-78	1.67	1893-94	2.55
1878-79	1.56	1894-95	2.55
1879-80	1.66	1895-96	2.62
1880-81	1.63	1896-97	2.63
1881-82	1.70	1897-98	2.67
1882-83	1.80	1898-99	2.70
1883-84	1.88	1899-1900	2.84
1884-85	1.96	1900-1901	a2.93
1885-86	1.97	1901-2	a2.99

DIAGRAM 4.—*School expenditure per capita of population.*

TABLE 15.—*The school expenditure of 1901–2 classified.*

State or Territory.	Paid for sites, buildings, furniture, libraries, and apparatus.	Paid for teachers' and superintendents' salaries.	Paid for all other purposes, principally maintenance.	Total expenditure, excluding payment of bonds.
1	2	3	4	5
United States	$41,758,488	$150,013,734	$43,436,243	$235,208,465
North Atlantic Division	19,289,961	53,280,221	18,671,980	91,242,162
South Atlantic Division	1,532,674	10,592,167	2,034,549	14,159,390
South Central Division	1,364,926	13,610,991	1,804,224	16,780,141
North Central Division	16,847,536	60,025,938	16,781,402	93,654,876
Western Division	2,723,391	12,504,417	4,144,088	19,371,896
North Atlantic Division:				
Maine	307,817	[a] 1,232,115	254,573	1,794,505
New Hampshire	143,644	740,289	[b] 283,531	1,167,464
Vermont	119,438	669,669	274,835	1,093,942
Massachusetts (1900–1901)	3,045,013	8,516,296	2,618,638	14,179,947
Rhode Island	319,197	1,088,859	300,356	1,708,412
Connecticut	727,209	2,136,606	692,627	3,556,442
New York [c]	9,304,302	22,716,338	5,717,014	37,737,654
New Jersey	930,789	4,348,178	[d] 1,697,160	6,976,118
Pennsylvania	4,362,561	11,831,871	6,833,246	23,027,678
South Atlantic Division:				
Delaware (1899–1900)	79,306	279,556	94,808	453,670
Maryland (1900–1901)	127,546	2,044,144	377,807	2,549,497
District of Columbia	547,487	913,091	233,677	1,694,255
Virginia (1900–1901)	187,301	1,592,110	232,948	2,012,359
West Virginia	239,426	1,395,712	564,212	2,199,350
North Carolina	89,988	980,048	[e] 217,240	1,287,276
South Carolina	72,554	859,537	53,303	985,394
Georgia	[f] 89,604	1,925,861	[g] 169,205	2,184,670
Florida	99,462	602,108	91,349	792,919
South Central Division:				
Kentucky (1900–1901)	252,964	2,362,129	286,558	2,851,651
Tennessee (1900–1901)	131,615	1,352,225	327,614	1,811,454
Alabama	([h])	948,984	108,922	1,057,906
Mississippi (1900–1901)	58,515	1,203,091	210,827	1,472,433
Louisiana	69,778	1,011,376	155,494	1,236,648
Texas	406,481	4,533,338	276,853	5,216,672
Arkansas	192,647	1,304,656	94,807	1,592,110
Oklahoma	252,926	640,948	222,357	1,116,231
Indian Territory [i]	([j])	[k] 254,244	170,792	425,036
North Central Division:				
Ohio	1,549,523	9,712,001	8,607,475	14,868,999
Indiana	986,652	5,739,150	2,490,280	9,216,082
Illinois	3,905,927	12,132,075	2,987,256	19,025,258
Michigan (1900–1901)	1,407,799	4,735,192	1,822,709	7,965,700
Wisconsin (1900–1901)	854,240	3,909,534	1,117,699	5,881,473
Minnesota	1,200,161	4,347,355	1,150,073	6,697,589
Iowa	3,111,673	[l] 6,102,036	([m])	9,213,709
Missouri	[n] 1,671,337	5,148,908	1,349,043	8,169,288
North Dakota	313,083	915,111	419,680	1,677,874
South Dakota	218,937	1,129,439	499,437	1,847,813
Nebraska	1,076,742	2,844,132	365,654	4,286,528
Kansas	521,462	3,311,005	972,096	4,804,563
Western Division:				
Montana (1900–1901)	217,090	548,662	114,130	879,882
Wyoming (1899–1900)	27,597	180,386	45,568	253,551
Colorado	400,626	1,883,163	817,066	3,100,855
New Mexico (1900–1901)	37,889	174,198	29,140	241,227
Arizona	63,449	224,600	88,636	376,685
Utah	324,291	717,619	357,276	1,399,186
Nevada	13,665	168,731	27,288	209,484
Idaho	187,579	394,906	107,151	689,636
Washington	536,115	1,504,266	765,074	2,805,455
Oregon	204,868	1,317,750	279,609	1,802,227
California	710,222	5,390,336	1,513,150	7,613,708

[a] Includes janitors' services.
[b] Includes debt paid.
[c] Approximately.
[d] Includes apparatus.
[e] Includes some unclassified expenditure for city schools.
[f] Not including cities.
[g] Includes expenditure for sites, buildings, etc., in cities.
[h] Included, so far as reported, in expenditure "for all other purposes."
[i] Returns imperfect.
[j] Not reported separately.
[k] Includes some miscellaneous expenditure.
[l] Includes expenditure for "other purposes."
[m] Included in expenditure for salaries of superintendents and teachers.
[n] Includes bonds paid.

TABLE 16.—(*1*) *Expenditure per pupil (based on average attendance); (2) average daily expenditure per pupil; (3) percentage analysis of school expenditure.*

State or Territory.	Expenditure per capita of average attendance.				Average daily expenditure per pupil.		Per cent of total expenditure devoted to—		
	For sites, buildings, etc.	For salaries.	For all other purposes.	Total per pupil.	For salaries only.	Total.	Sites, buildings, etc.	Salaries.	All other purposes.
1	2	3	4	5	6	7	8	9	10
					Cents.	*Cents.*			
United States	$3.79	$13.64	$3.95	$21.38	9.4	14.7	17.7	63.8	18.5
North Atlantic Division	7.04	19.43	6.81	33.28	11.0	18.8	21.1	58.4	20.5
South Atlantic Division	1.06	7.32	1.41	9.79	6.3	8.5	10.8	74.8	14.4
South Central Division	0.65	6.49	0.86	8.00	6.4	7.9	8.1	81.1	10.8
North Central Division	4.11	14.64	4.09	22.84	9.3	14.6	18.0	64.1	17.9
Western Division	4.44	20.39	6.76	31.59	11.2	22.0	14.1	64 5	21.4
North Atlantic Division:									
Maine	3.11	[a] 12.46	2.57	18.14	[a] 8.5	12.3	17.2	[a] 68.6	14.2
New Hampshire	2.92	15.02	[b] 5.75	23.69	10.7	16.9	12.3	63.4	[b] 24.3
Vermont	3.04	13.61	5.58	22.23	8.8	14.4	13.7	61.2	25.1
Massachus tts (1900–1901)	8.21	22.94	7.06	38.21	12.4	20.7	21.5	60.0	18.5
Rhode Island	6.32	21.55	5.95	33.82	11.1	17.4	18.7	63.7	17.6
Connecticut	6.16	18.10	5.87	30.13	9.6	15.9	20.4	60.1	19.5
New York [c]	10.24	25.01	6.29	41.54	13.4	22.3	24.7	60.1	15.2
New Jersey	4.16	19.41	[d] 7.58	31.15	10.3	16.6	13.4	62.3	[d] 24.3
Pennsylvania	5.00	13.57	7.84	26.41	8.2	15.9	18.9	51.4	29.7
South Atlantic Division:									
Delaware (1899–1900)	3.13	11.05	3.75	17.93	6.5	10.5	17.5	61.6	20.9
Maryland (1900–1901)	0.94	15.08	2.79	18.81	7.9	9.9	5.0	80.2	14.8
District of Columbia	14.41	24.03	6.15	44.59	13.7	25.3	32.3	53.9	13.8
Virginia (1900–1901)	0.83	7.05	1.03	8.91	5.8	7.3	9.3	79.1	11.6
West Virginia	1.57	9.17	3.71	14.45	7.8	12.2	10.9	63.5	25.6
North Carolina	0.34	3.64	[e] 0.81	4.79	4.2	5.5	7.0	76.1	[e] 16.9
South Carolina	0.35	4.12	0.26	4.73	4.7	5.4	7.4	87.2	5.4
Georgia	[f] 0.28	6.11	[g] 0.54	6.93	5.4	6.1	[f] 4.1	88.2	[g] 7.7
Florida	1.31	7.90	1.20	10.41	7.6	10.0	12.6	75.9	11.5
South Central Division:									
Kentucky (1900–1901)	0.80	7.49	0.75	9.04	7.2	8.7	8.9	82.8	8.3
Tennessee (1900–1901)	0.35	4.15	0.67	5.17	4.3	5.8	6.7	80.2	13.1
Alabama	(*h*)	3.96	0.45	4.41	3.9	4.3	(*h*)	89.7	10.3
Mississippi (1900–1901)	0.18	5.58	0.72	6.48	5.4	6.6	2.7	86.2	11.1
Louisiana	0.50	7.21	1.11	8.82	6.0	7.3	5.6	81.8	12.6
Texas	0.78	8.64	0.53	9.95	8.5	9.8	7.8	86.9	5.3
Arkansas	0.90	6.07	0.44	7.41	6.6	8.1	12.1	81.9	6.0
Oklahoma	3.04	7.72	2.68	13.44	8.1	14.1	22.7	57.4	19.9
Indian Territory [i]	(*j*)	[k] 18.79	12.63	31.42	[k] 11.8	19.8	(*j*)	[k] 59.8	40.2
North Central Division:									
Ohio	2.53	15.91	5.91	24.35	9.6	14.8	10.4	65.3	24.3
Indiana	2.33	13.56	5.89	21.78	9.3	14.9	10.7	62.3	27.0
Illinois	5.11	15.86	3.90	24.87	9.5	14.9	20.6	63.7	15.7
Michigan (1900–1901)	4.23	13.20	4.78	22.21	8.7	14.6	19.0	59.5	21.5
Wisconsin (1900–1901)	3.07	14.02	4.01	21.10	8.3	12.5	14.5	66.5	19.0
Minnesota	4.54	16.45	4.35	25.34	10.7	16.5	17.9	64.9	17.2
Iowa	8.82	[l] 16.31	(*m*)	24.63	[l] 10.2	15.4	33.8	[l] 66.2	(*m*)
Missouri	[n] 3.54	10.89	2.85	17.28	7.6	12.0	[n] 20.5	63.0	16.5
North Dakota	7.00	18.68	8.57	34.25	12.7	23.3	20.5	54.5	25.0
South Dakota	3.01	15.50	6.86	25.37	11.7	19.2	11.9	61.1	27.0
Nebraska	5.80	15.31	1.97	23.08	9.3	14.0	25.1	66.4	8.5
Kansas	1.91	12.12	3.56	17.59	9.6	14.0	10.9	68.9	20.2
Western Division:									
Montana (1900–1901)	8.38	21.18	4.41	33.97	17.4	27.9	24.7	62.3	13.0
Wyoming (1899–1900)	2.72	17.74	4.49	24.95	17.0	23.8	10.9	71.1	18.0
Colorado	4.85	22.77	9.88	37.50	16.9	27.8	12.9	60.7	26.4
New Mexico	1.39	6.38	1.06	8.83	7.5	10.4	15.7	72.2	12.1
Arizona	5.51	19.51	7.70	32.72	15.6	26.2	16.9	59.6	23.5
Utah	6.04	13.37	6.65	26.06	8.6	16.7	23.2	51.3	25.5
Nevada	2.73	33.61	5.44	41.78	21.6	26.9	6.5	80.5	13.0
Idaho	6.25	13.15	3.57	22.97	10.6	18.5	27.2	57.3	15.5
Washington	5.87	16.47	8.38	30.72	14.2	26.4	19.1	53.6	27.3
Oregon	3.07	19.73	4.19	26.99	12.5	17.1	11.4	73.1	15.5
California	3.39	25.75	7.23	36.37	15.4	21.7	9.3	70.8	19.9

[a] Includes janitors' services.
[b] Includes debt paid.
[c] Approximately.
[d] Includes apparatus.
[e] Includes some unclassified expenditure for city schools.
[f] Not including cities.
[g] Includes expenditure for sites, buildings, in cities.
[h] Included, so far as reported, in expenditure for "all other purposes."
[i] Returns imperfect.
[j] Not reported separately.
[k] Includes some miscellaneous expenditure.
[l] Includes expenditure for "other purposes."
[m] Included in teachers' salaries.
[n] Includes bond payments.

TABLE 17.—*Amount expended for common schools each year since 1869–70.*

Year.	Expended for—			Total expenditure.
	Sites, buildings, furniture, etc.	Teachers' and superintendents' salaries.	All other purposes.	
1869–70	.....	$37,832,566	.....	$63,396,666
1870–71	.....	42,580,853	.....	69,107,612
1871–72	.....	45,935,681	.....	74,234,476
1872–73	.....	47,932,050	.....	76,238,464
1873–74	.....	50,785,656	.....	80,054,286
1874–75	.....	54,722,250	.....	83,504,007
1875–76	.....	55,358,166	.....	83,082,578
1876–77	.....	54,973,776	.....	79,439,826
1877–78	.....	56,155,133	.....	79,083,260
1878–79	.....	54,639,731	.....	76,192,375
1879–80	.....	55,942,972	.....	78,094,687
1880–81	.....	58,012,463	.....	83,642,964
1881–82	.....	60,594,933	.....	88,990,466
1882–83	.....	64,798,859	.....	96,750,003
1883–84	.....	68,384,275	.....	103,212,837
1884–85	.....	72,878,993	.....	110,328,375
1885–86	.....	76,270,434	.....	113,322,545
1886–87	.....	78,639,964	.....	115,783,890
1887–88	.....	83,022,562	.....	124,244,911
1888–89	$23,395,624	87,568,306	.....	132,539,783
1889–90	26,207,041	91,836,484	$22,463,190	140,506,715
1890–91	26,448,047	96,303,069	24,743,693	147,494,809
1891–92	29,344,559	100,298,256	26,174,197	155,817,012
1892–93	30,294,130	104,560,339	29,316,588	164,171,057
1893–94	30,007,688	109,202,405	33,292,750	172,502,843
1894–95	29,436,940	113,872,388	32,499,951	175,809,279
1895–96	32,590,112	117,139,841	33,769,012	183,498,965
1896–97	32,376,476	119,310,503	35,995,290	187,682,269
1897–98	31,415,233	124,192,270	38,685,408	194,292,911
1898–99	31,229,308	129,345,873	39,579,416	200,154,597
1899–1900	35,450,820	137,687,746	41,826,052	214,964,618
1900–1901 [a]	40,361,964	142,776,168	42,905,104	226,043,236
1901–2 [a]	41,758,488	150,013,734	43,436,243	235,208,465

[a] Subject to correction.

TABLE 18.—(*1*) *School expenditure per capita of population;* (*2*) *same per capita of average attendance.*

Year.	Expended per capita of population.						Expended per pupil.					
	United States.	North Atlantic Division.	South Atlantic Division.	South Central Division.	North Central Division.	Western Division.	United States.	North Atlantic Division.	South Atlantic Division.	South Central Division.	North Central Division.	Western Division.
1870-71	$1.75	$2.38	$0.63	$0.73	$2.14	$2.15	$15.20	$18.31	$10.27	$9.06	$14.87	$21.87
1871-72	1.83	2.40	.68	.81	2.31	2.27	15.93	18.86	10.46	9.08	16.36	23.57
1872-73	1.84	2.44	.68	.74	2.31	2.42	16.06	19.89	9.25	8.39	16.53	25.04
1873-74	1.88	2.51	.76	.68	2.38	2.40	15.85	19.89	9.01	7.55	16.57	24.36
1874-75	1.91	2.55	.80	.73	2.36	2.76	15.91	20.17	8.98	7.51	16.69	26.85
1875-76	1.85	2.45	.79	.55	2.37	2.78	15.70	19.14	8.65	6.70	16.91	26.35
1876-77	1.72	2.29	.72	.51	2.21	2.61	14.64	17.89	7.68	6.25	15.93	24.69
1877-78	1.67	2.15	.70	.56	2.14	2.73	13.67	16.55	7.21	5.98	15.08	25.82
1878-79	1.56	2.03	.63	.55	2.00	2.53	12.97	16.05	6.76	5.65	14.22	23.39
1879-80	1.56	1.97	.68	.55	2.03	2.41	12.71	15.64	6.60	5.40	14.39	22.59
1880-81	1.63	2.08	.72	.58	2.09	2.54	13.61	17.14	7.22	5.72	15.19	23.81
1881-82	1.70	2.11	.74	.64	2.19	2.59	14.05	17.35	7.63	6.25	15.79	24.32
1882-83	1.80	2.22	.82	.68	2.31	2.74	14.55	18.17	7.46	6.17	16.69	25.39
1883-84	1.88	2.25	.84	.74	2.48	2.83	14.63	18.37	7.44	6.26	16.90	24.69
1884-85	1.96	2.38	.88	.82	2.53	2.90	15.12	19.19	7.32	6.74	17.53	26.31
1885-86	1.97	2.36	.88	.87	2.54	2.88	15.06	19.11	7.33	6.93	17.45	25.52
1886-87	1.97	2.35	.90	.87	2.55	2.76	15.07	19.38	7.33	6.88	17.45	24.85
1887-88	2.07	2.48	.95	.87	2.68	2.96	15.71	20.60	7.61	6.60	18.29	27.38
1888-89	2.17	2.59	.98	.94	2.76	3.28	16.55	21.64	7.77	7.12	19.30	29.37
1889-90	2.24	2.76	.99	.97	2.81	3.37	17.23	23.58	7.78	7.28	19.70	30.57
1890-91	2.31	2.78	1.06	1.04	2.85	3.91	17.54	23.66	8.52	7.78	19.42	33.42
1891-92	2.40	2.90	1.06	1.07	2.94	4.20	18.20	24.89	8.74	7.82	20.13	33.55
1892-93	2.48	3.02	1.09	1.06	3.06	4.20	18.58	25.01	8.65	7.72	20.62	33.57
1893-94	2.55	3.13	1.12	1.09	3.23	3.77	18.62	26.21	8.61	7.58	21.29	29.06
1894-95	2.55	3.28	1.11	1.09	3.13	3.67	18.41	26.84	8.58	7.69	20.26	27.32
1895-96	2.62	3.49	1.13	1.10	3.12	3.73	18.76	28.45	8.87	7.60	20.09	27.16
1896-97	2.63	3.65	1.17	1.04	3.06	3.56	18.67	28.77	9.32	7.09	19.75	25.86
1897-98	2.67	3.75	1.19	1.08	3.07	3.81	18.76	29.34	8.97	7.09	19.47	28.29
1898-99	2.70	3.71	1.24	1.01	3.15	3.84	19.38	29.28	9.96	7.17	20.62	28.50
1899-1900	2.84	3.99	1.24	1.08	3.27	4.27	20.21	31.82	9.61	7.32	21.12	30.98
1900-1901[a]	2.93	4.17	1.28	1.06	3.36	4.25	21.14	33.52	9.61	7.54	22.26	31.46
1901-2[a]	2.99	4.18	1.32	1.14	3.48	4.39	21.38	33.28	9.79	8.00	22.84	31.59

[a] Subject to correction.

TABLE 19.—*Wealth and school expenditure, 1880 and 1890.*

State or Territory.	True valuation of real and personal property.[a]		Expenditure for public schools (excluding debt paid).		Expended for public schools on each $100 of true valuation of all real and personal property.	
	1880.	1890.	1880.	1890.	1880.	1890.
United States	$43,642,000,000	$64,829,040,611	$78,091,687	$140,506,715	*Cents.* 17.9	*Cents.* 21.7
North Atlantic Division	17,533,000,000	21,435,491,864	28,538,058	48,023,492	16.3	22.4
South Atlantic Division	3,759,000,000	5,132,980,666	5,130,492	8,767,165	13.6	17.1
South Central Division	3,882,000,000	6,193,230,433	4,872,829	10,678,680	12.6	17.2
North Central Division	16,186,000,000	25,255,915,549	35,285,635	62,823,563	21.8	24.9
Western Division	2,282,000,000	6,811,422,099	4,267,673	10,213,815	18.7	15.0
North Atlantic Division:						
Maine	511,000,000	489,134,128	1,067,991	1,327,553	20.9	27.1
New Hampshire	363,000,000	325,128,740	565,339	[b]844,333	15.6	26.0
Vermont	302,000,000	265,567,323	446,217	711,072	14.8	26.8
Massachusetts	2,623,000,000	2,803,645,447	4,983,900	8,286,062	18.9	29.6
Rhode Island	400,000,000	504,162,352	526,112	884,966	13.2	17.6
Connecticut	779,000,000	835,120,219	1,408,375	2,157,014	18.1	25.8
New York	6,308,000,000	8,576,701,991	10,296,977	17,543,880	16.3	20.5
New Jersey	1,305,000,000	1,445,285,114	1,873,165	[c]3,340,190	14.4	23.1
Pennsylvania	4,942,000,000	6,190,746,550	7,369,682	12,928,422	14.9	20.9
South Atlantic Division:						
Delaware	136,000,000	175,678,795	207,281	275,000	15.2	15.7
Maryland	837,000,000	1,085,473,048	1,544,367	1,910,663	18.5	17.6
District of Columbia	220,000,000	343,596,733	438,567	905,777	19.9	26.4
Virginia	707,000,000	862,318,070	946,109	1,604,509	13.4	18.6
West Virginia	350,000,000	438,954,881	707,553	1,198,493	20.2	27.3
North Carolina	461,000,000	584,148,999	376,062	714,900	8.2	12.2
South Carolina	322,000,000	400,911,303	321,629	450,936	10.1	11.2
Georgia	606,000,000	852,409,449	471,029	1,190,354	7.8	14.0
Florida	120,000,000	389,489,388	114,895	516,533	9.6	13.3
South Central Division:						
Kentucky	902,000,000	1,172,232,313	1,069,060	2,140,678	11.9	18.3
Tennessee	705,000,000	887,956,143	744,180	1,526,241	10.6	17.2
Alabama	428,000,000	622,773,504	500,000	890,000	11.7	14.3
Mississippi	354,000,000	454,242,688	830,705	1,109,575	23.5	24.4
Louisiana	382,000,000	495,301,597	411,858	817,110	10.8	16.5
Texas	825,000,000	2,105,576,766	1,030,000	3,178,300	12.5	15.1
Arkansas	286,000,000	455,147,422	287,056	1,016,776	10.0	22.3
Oklahoma	.....	.....	.....	.....	.....	.....
Indian Territory	.....	.....	.....	.....	.....	.....
North Central Division:						
Ohio	3,238,000,000	3,951,382,384	7,166,963	10,602,238	22.1	26.8
Indiana	1,681,000,000	2,095,176,626	4,491,850	5,245,218	26.7	25.0
Illinois	3,210,000,000	5,066,751,719	7,014,092	11,645,126	21.9	23.0
Michigan	1,580,000,000	2,095,016,272	2,775,917	5,349,366	17.6	25.5
Wisconsin	1,139,000,000	1,833,308,523	2,177,023	3,801,212	19.1	20.7
Minnesota	792,000,000	1,691,851,927	1,328,429	4,187,310	16.8	24.7
Iowa	1,721,000,000	2,287,348,333	4,484,043	6,382,953	26.1	27.9
Missouri	1,562,000,000	2,397,902,945	2,675,364	5,434,262	17.1	22.7
North Dakota	118,000,000	337,006,506	245,000	626,949	20.8	18.6
South Dakota		425,141,299		1,199,630		28.2
Nebraska	385,000,000	1,275,685,514	1,108,617	3,376,332	28.8	26.5
Kansas	760,000,000	1,799,343,501	1,818,337	4,972,967	23.9	27.6
Western Division:						
Montana	40,000,000	453,135,209	78,730	364,084	19.7	8.0
Wyoming	54,000,000	169,773,710	28,505	225,000	5.3	13.3
Colorado	240,000,000	1,145,712,267	395,227	1,681,379	16.5	14.7
New Mexico	49,000,000	231,459,897	28,973	85,000	5.9	3.7
Arizona	41,000,000	188,880,976	61,172	181,914	14.9	9.6
Utah	114,000,000	349,411,234	132,194	394,685	11.6	11.3
Nevada	156,000,000	180,323,668	220,245	161,481	14.1	9.0
Idaho	29,000,000	207,896,591	38,411	169,020	13.2	8.1
Washington	62,000,000	760,698,726	112,615	958,111	18.2	12.6
Oregon	154,000,000	590,396,194	307,031	805,979	19.9	13.7
California	1,343,000,000	2,533,733,627	2,864,571	5,187,162	21.3	20.5

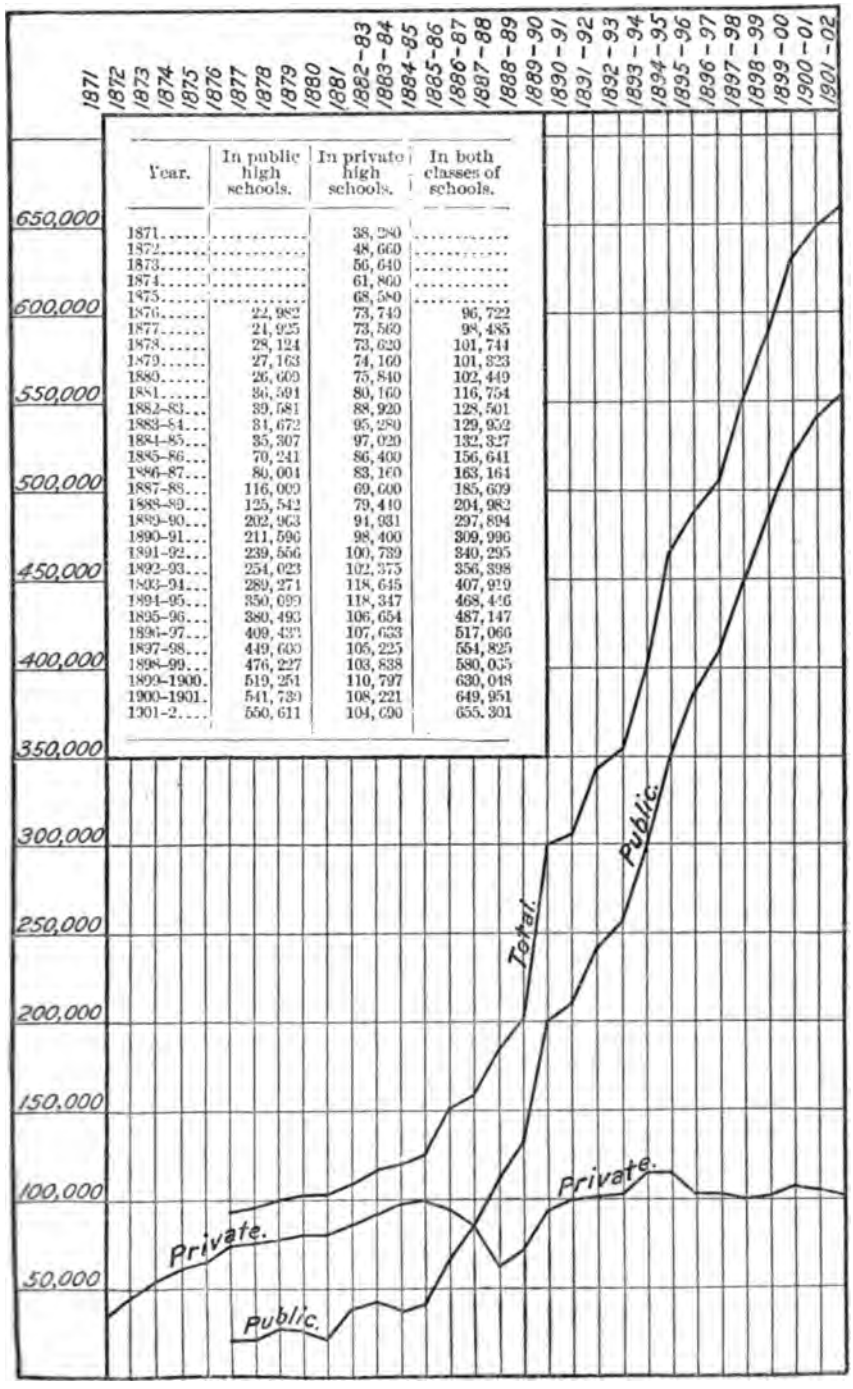
[a] From United States census reports. [b] Includes debt paid, if any. [c] Amount of revenue.

TABLE 20.—*Permanent school funds and school lands.*

State or Territory.	Permanent common school funds, State and local.[a]	Productive school lands.		Total value of permanent funds and productive lands.	Unproductive school lands.	
		Acres under lease.	Estimated value of same.		Acres not under lease.	Estimated value of same.
1	2	3	4	5	6	7
United States	$164,955,190					
North Atlantic Division	22,482,565					
South Atlantic Division	4,190,777					
South Central Division	40,077,525					
North Central Division	87,937,288					
Western Division	10,267,035					
North Atlantic Division:						
Maine	442,758					
New Hampshire	[b]	0	0	[b]	0	0
Vermont	[c] 211,131	0	0	$211,131	0	0
Massachusetts	4,470,548					
Rhode Island	254,137	0	0	254,137	0	0
Connecticut	[d] 3,054,541	0	0	3,054,541	0	0
New York (1900–1901)	8,587,661					
New Jersey	5,461,789	[e]			[e]	
Pennsylvania	0	0	0	0	0	0
South Atlantic Division:						
Delaware (1896–97)	[f] 350,000	0	0	[f] 350,000	0	0
Maryland		0	0		0	0
District of Columbia	0	0	0	0	0	0
Virginia	1,747,527	0	0	1,747,527	0	0
West Virginia	[g] 1,104,413					
North Carolina	194,159	0	0	194,159	600,000	$503,000
South Carolina						
Georgia	[h]	[i]				
Florida	794,678	0	0	794,678	257,925	322,406
South Central Division:						
Kentucky	2,315,627					
Tennessee	2,512,500					
Alabama	2,564,462					
Mississippi (1896–97)	1,052,004					
Louisiana						
Texas	30,489,932	14,829,636	$15,877,556	46,367,488	5,200,000	5,400,000
Arkansas	1,143,000					
Oklahoma						
Indian Territory						
North Central Division:						
Ohio	4,003,677					
Indiana (1900–1901)	10,874,326					
Illinois (1900–1901)	[j] 7,031,541	[k] 7,249	[j] 9,571,580	16,603,124		
Michigan (1900–1901)	6,533,112					
Wisconsin (1900–1901)	5,582,452	0	0	5,582,452	350,000	1,050,000
Minnesota	15,650,425					
Iowa	4,724,804					
Missouri	12,795,517					
North Dakota	1,418,629					
South Dakota	4,084,567	1,126,670	[l] 11,266,696	15,351,263	747,325	[l] 7,473,246
Nebraska	7,706,503	1,939,258	6,000,000	13,706,503	1,339	5,000
Kansas	7,531,732					
Western Division:						
Montana	571,881				1,665,432	
Wyoming (1899–1900)	48,000	1,309,925	1,004,580	1,052,580	2,691,980	1,345,990
Colorado	1,251,901	1,178,842	5,894,210	7,146,111	2,173,362	7,606,769
New Mexico		661,000				
Arizona						
Utah	291,205	38,195	60,415	351,620	1,613,809	2,270,713
Nevada	1,809,256					
Idaho (1899–1900)	441,780	12,117	121,173	562,953	2,726,000	6,815,000
Washington (1900–1901)	1,442,513					
Oregon (1899–1900)	769,299					
California	3,641,200					

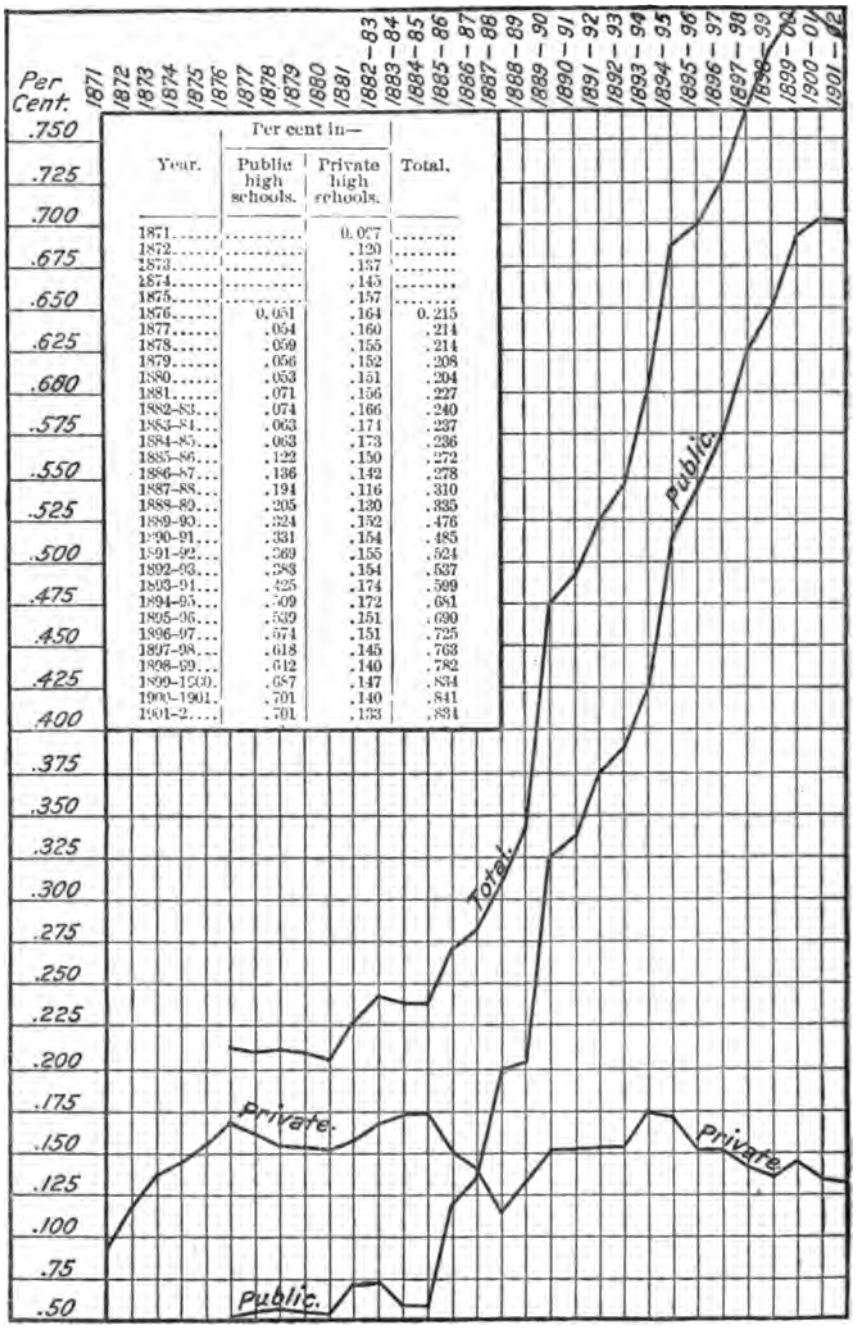
[a] Including unpaid principal due on contracts for purchase of school lands.
[b] Some local funds; amount not known.
[c] The "Huntington fund." There are some local funds whose income is applied to schools; amount not known.
[d] Value when last ascertained.
[e] Riparian lands; amount not determined.
[f] Approximately.
[g] To be limited to $1,000,000 by constitutional amendment of 1902.
[h] Half the Western and Atlantic R. R. and some stock of the Georgia R. R.
[i] Oyster lands; amount not known.
[j] From Illinois school report for 1900–1902, page 178. College, seminary, and University of Illinois funds are not included.
[k] Situated chiefly, if not wholly, in the city of Chicago.
[l] Minimum sale price of $10 per acre fixed by law.

DIAGRAM 5.—*Number of secondary students in public and private secondary schools.*



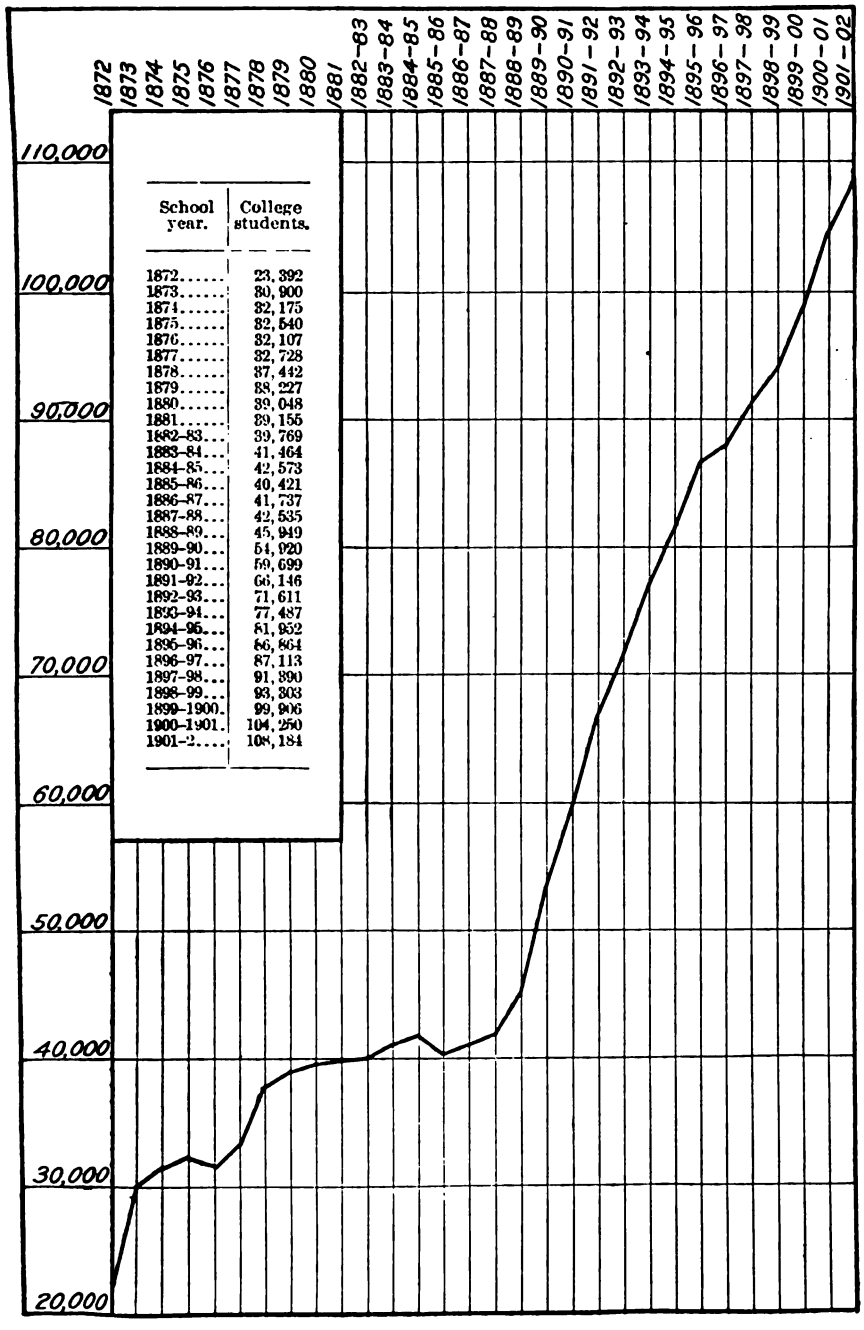
Year.	In public high schools.	In private high schools.	In both classes of schools.
1871	.....	38,280	.....
1872	.....	48,660	.....
1873	.....	56,640	.....
1874	.....	61,860	.....
1875	.....	68,580	.....
1876	22,982	73,740	96,722
1877	24,925	73,560	98,485
1878	28,124	73,620	101,744
1879	27,163	74,160	101,323
1880	26,609	75,840	102,449
1881	36,591	80,160	116,754
1882–83	39,581	88,920	128,501
1883–84	34,672	95,280	129,952
1884–85	35,307	97,020	132,327
1885–86	70,241	86,400	156,641
1886–87	80,004	83,160	163,164
1887–88	116,009	69,600	185,609
1888–89	125,542	79,440	204,982
1889–90	202,963	94,931	297,894
1890–91	211,596	98,400	309,996
1891–92	239,556	100,739	340,295
1892–93	254,023	102,375	356,398
1893–94	289,271	118,645	407,919
1894–95	350,099	118,347	468,446
1895–96	380,493	106,654	487,147
1896–97	409,433	107,633	517,066
1897–98	449,600	105,225	554,825
1898–99	476,227	103,838	580,065
1899–1900	519,251	110,797	630,048
1900–1901	541,730	108,221	649,951
1901–2	550,611	104,690	655,301

DIAGRAM 6.—*Per cent of the population enrolled as secondary students in private and public secondary schools for a series of years.*



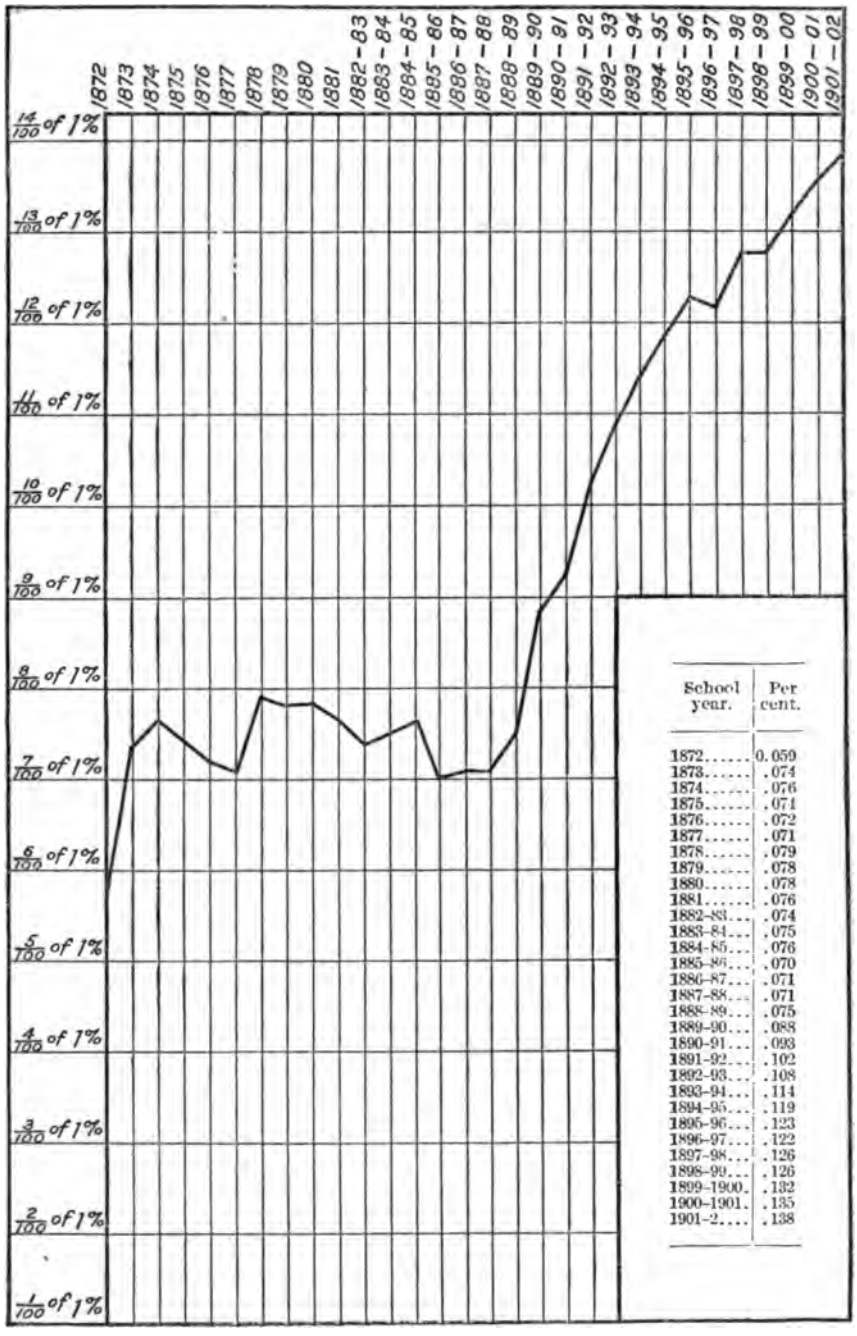
Year.	Per cent in—		Total.
	Public high schools.	Private high schools.	
1871	.....	0.067	.....
1872	.....	.120	.....
1873	.....	.137	.....
1874	.....	.145	.....
1875	.....	.157	.....
1876	0.051	.164	0.215
1877	.054	.160	.214
1878	.059	.155	.214
1879	.056	.152	.208
1880	.053	.151	.204
1881	.071	.156	.227
1882–83	.074	.166	.240
1883–84	.063	.174	.237
1884–85	.063	.173	.236
1885–86	.122	.150	.272
1886–87	.136	.142	.278
1887–88	.194	.116	.310
1888–89	.205	.130	.335
1889–90	.324	.152	.476
1890–91	.331	.154	.485
1891–92	.369	.155	.524
1892–93	.383	.154	.537
1893–94	.425	.174	.599
1894–95	.509	.172	.681
1895–96	.539	.151	.690
1896–97	.574	.151	.725
1897–98	.618	.145	.763
1898–99	.642	.140	.782
1899–1900	.687	.147	.834
1900–1901	.701	.140	.841
1901–2	.701	.133	.834

DIAGRAM 7.—*Showing number of college students each year since 1872.*



School year.	College students.
1872	23,392
1873	30,900
1874	32,175
1875	32,540
1876	32,107
1877	32,728
1878	37,442
1879	38,227
1880	39,048
1881	39,155
1882-83	39,769
1883-84	41,464
1884-85	42,573
1885-86	40,421
1886-87	41,737
1887-88	42,535
1888-89	45,949
1889-90	54,020
1890-91	59,699
1891-92	66,146
1892-93	71,611
1893-94	77,487
1894-95	81,952
1895-96	86,864
1896-97	87,113
1897-98	91,390
1898-99	93,303
1899-1900	99,906
1900-1901	104,250
1901-2	108,184

DIAGRAM 8.—*Showing what per cent of the total population was enrolled as college students during each year since 1872.*



School year.	Per cent.
1872.....	0.059
1873.....	.074
1874.....	.076
1875.....	.074
1876.....	.072
1877.....	.071
1878.....	.079
1879.....	.078
1880.....	.078
1881.....	.076
1882-83...	.074
1883-84...	.075
1884-85...	.076
1885-86...	.070
1886-87...	.071
1887-88...	.071
1888-89...	.075
1889-90...	.088
1890-91...	.093
1891-92...	.102
1892-93...	.108
1893-94...	.114
1894-95...	.119
1895-96...	.123
1896-97...	.122
1897-98...	.126
1898-99...	.126
1899-1900.	.132
1900-1901.	.135
1901-2....	.138

II.—LEGAL PROVISIONS GOVERNING THE PRACTICE OF MEDICINE IN THE SEVERAL STATES.

In the following pages is given a synopsis of the legal requirements for admission to the practice of medicine in the several States and Territories of the United States. The medical laws of nearly all of the States and Territories are of comparatively recent date, and this compilation includes the provisions of law in ten States and Territories enacted in 1903. In all cases where the laws provide for reciprocity of licensure with other States and Territories or with foreign countries that fact is stated. Following the requirements of each State are given the name and title of the officer to whom application for license should be made.

Alabama.—Examination by the State board of examiners, or before one of the county boards. The latter can examine only the graduates of medical colleges indorsed by the State Medical Association. There is no provision for reciprocity of licensure with other States. Dr. W. H. Sanders, Chairman of State Board of Medical Examiners, Montgomery, Ala.

Arizona.—"The law provides for the issuance of license to those who are residents of Arizona, are of the age of 21, and are of good moral character, and who in addition (1) present diploma and pass examination; or (2) present diploma and show certificate of license under the laws of 1901 or 1897; or (3) have practiced for five successive years previous to the passage of the act and pass an examination." [a] (Act of March 19, 1903.) Dr. William Duffield, Secretary of the Territorial Board of Medical Examiners, Phœnix, Ariz.

Arkansas.—Examination before one of the three State boards of medical examiners. No provision in the law for the recognition of licenses of other States. (Act of 1903.) Dr. J. P. Runyan, Secretary of the State Medical Board of the Arkansas Medical Society, Little Rock, Ark.; ———, Secretary of the Homeopathic State Medical Board, ———; ———, Secretary of the Eclectic State Medical Board, ———.

California.—Examination before the State board of medical examiners. The candidate must have graduated from a medical college, the requirements of which equal those prescribed by the Association of American Medical Colleges. Reciprocity is provided for by law with the District of Columbia or any State or Territory, provided the legal requirements in such State or Territory are equal to those of California, and such State or Territory will recognize the certificate of California. (Act of February 27, 1901.) Dr. George G. Gere, Secretary of State Board of Medical Examiners, San Francisco, Cal.

Colorado.—Examination or diploma of a recognized medical college. Only residents of Colorado are registered. Dr. S. D. Van Meter, Secretary of State Board of Medical Examiners, Denver, Colo.

Connecticut.—Examination and diploma of a recognized medical college. No reciprocity provision. (Act of June 11, 1901.) Dr. C. A. Lindsley, Secretary of State Board of Health, New Haven, Conn.

Delaware.—Examination, a medical diploma, and a competent common-school education. Applicants licensed by other States having requirements equal to those demanded by the State of Delaware may be licensed without examination. (Acts of April 18, 1895, and March 16, 1899.) Dr. P. W. Tomlinson, Secretary of State Medical Council, Wilmington, Del.

District of Columbia.—Examination and medical diploma after study of medicine for three years if the diploma was granted prior to June 30, 1898, or four years if granted after that date. The law provides for reciprocity of licensure. (Act of

[a] Provisions of the new medical law of Arizona as given by the Jour. A. M. Assoc., Apr. 4, 1903.

June 3, 1896.) Dr. W. C. Woodward, Secretary of the Board of Medical Supervisors, Washington, D. C.

Florida.—Examination and diploma of a recognized medical college. No provision for reciprocity. (Act of May 17, 1895.) There are nine boards of medical examiners, one representing each of the seven judicial districts, one the homeopaths, and one the eclectics.

Georgia.—Examination and diploma of a recognized medical college. There is no provision for reciprocity. (Act of December 12, 1894.) Dr. J. B. S. Holmes, Secretary of the Board of Examiners of the "Regular School of Medicine," Atlanta, Ga.; Dr. R. E. Hinman, Secretary of the Homeopathic Board of Examiners, Atlanta, Ga.; Dr. M. T. Salter, Secretary of the Eclectic Board of Examiners, Atlanta, Ga.

Idaho.—Examination and diploma of a reputable medical college. There is no provision for reciprocity of licensure. (Act of 1889.) Dr. R. L. Nourse, Secretary of the State Board of Medical Examiners, Hailey, Idaho.

Illinois.—Examination and diploma of a recognized medical college. The law permits the granting of licenses without examination to graduates of Illinois medical colleges, but the board requires all to pass the examination. Reciprocity of licensure is provided for by the board. Dr. J. A. Egan, Secretary of the State Board of Health, Springfield, Ill.

Indiana.—Examination and diploma of a reputable medical college. Anyone who matriculated in a recognized medical college in Indiana prior to January 1, 1901, and who, with a diploma from such school, makes application for a license prior to January 1, 1905, shall be granted a certificate without examination. The law provides for reciprocity with other States. Dr. W. T. Gott, Secretary of the State Board of Medical Registration and Examination, Crawfordsville, Ind.

Iowa.—Examination and graduation from a recognized medical college having a four years' course of study of not less than twenty-six weeks each. There is no provision for reciprocity. Dr. J. F. Kennedy, Secretary of State Board of Medical Examiners, Des Moines, Iowa.

Kansas.—(1) Examination after study of medicine four periods of not less than six months each; or, (2) a license may be granted without examination to graduates of medical schools in good standing of the United States or foreign countries; or, (3) licenses may be granted on the certificate of any board of examination of any other State or Territory of the United States or any foreign country. (Act of March 22, 1901.) Under date of March 20, 1903, the State board published a circular letter stating: "No registrations will be made on diplomas or certificates from other State boards." Dr. H. W. Roby, Secretary of State Board of Medical Registration and Examination, Topeka, Kans.

Kentucky.—(1) Diploma from a reputable medical college of Kentucky, or (2) from some reputable medical college of some other State or country, indorsed as such by the State Board of Health. (Act of 1898.) Dr. J. N. McCormack, Secretary of State Board of Health, Bowling Green, Ky.

Louisiana.—Examination and diploma of a medical school in good standing and a fair elementary education. No provision for reciprocity. (Act of July 13, 1894.) Dr. F. A. Larue, Secretary of the Board of Medical Examiners representing the Louisiana State Medical Society, New Orleans, La.; Dr. Gayle Aiken, Secretary of the Board of Medical Examiners representing the Hahnemann State Medical Society, New Orleans, La.

Maine.—Examination and graduation from a medical college in good standing, maintaining a standard of preliminary education and of medical instruction approved by the board. Provides for reciprocity with other States on rules and regulations made by the board and approved by a justice of the supreme judicial court. (Act of March 22, 1901.) Dr. A. K. P. Meserve, Secretary of Board of Registration of Medicine, Portland, Me.

each, including four satisfactory courses of lectures of at least seven months each, in four different calendar years in a medical college. The law provides for reciprocity with other States. (Act of April 8, 1903.) Dr. E. L. B. Godfrey, Secretary of State Board of Medical Examiners, Camden, N. J.

New Mexico.—Graduation from a medical college in good standing. A medical college in good standing "is declared to be one of at least ten years continuous existence, one which now requires a high school certificate, or its equivalent, for admission to it, and one which now or hereafter requires an attendance on, and gives four full courses in four separate years, and one which has ample clinical facilities such as are furnished in large cities." The law provides for reciprocity with other States and Territories. (Act of March 12, 1903.) Dr. W. G. Hope, Secretary of New Mexico Board of Health, Albuquerque, N. Mex.

New York.—(1) Examination; (2) diploma from a medical college registered by the Regents of the University of the State of New York, or a diploma or license conferring the right to practice in some foreign country; (3) the preliminary education required by the regents; (4) study of medicine four years of nine months each, including attendance at a registered medical college four years of six months each. The law provides for reciprocity with other States and Territories. James Russell Parsons, Secretary of the Regents of the University of the State of New York, Albany, N. Y.

North Carolina.—Examination. Applicant must have a diploma from a medical college in good standing, or in lieu thereof may present a license to practice in some other State. All applicants are examined. (Act of 1899.) Dr. J. Howell Way, Secretary of State Board of Medical Examiners, Waynesville, N. C.

North Dakota.—Examination after attending three courses of lectures of at least six months each. No provision for reciprocity of licensure. Dr. H. M. Wheeler, Secretary of State Board of Medical Examiners, Grand Forks, N. Dak.

Ohio.—Examination. Applicants must have graduated from recognized medical colleges and have practically a high school education. The preliminary requirement applies only to those who have matriculated since January 1, 1900. Those who were matriculated in recognized Ohio medical colleges January 1, 1900, may receive certificates under the act of February 27, 1896. The law provides for reciprocity with any State, Territory, or the District of Columbia. (Act of April 14, 1900.) Dr. Frank Winders, Secretary of State Board of Medical Registration and Examination, Columbus, Ohio.

Oklahoma.—Examination. Applicants must furnish proof of ten years' continuous practice or of graduation from a reputable medical college. (Act of March 12, 1903.) Dr. E. E. Cowdrick, Secretary of Territorial Board of Health, Enid, Okla.

Oregon.—Examination. The law provides for reciprocity with any State in the United States requiring an examination for license. (Act of February 17, 1903.) Dr. B. E. Miller, Secretary of State Board of Medical Examiners, Portland, Oreg.

Pennsylvania.—Examination. The applicant must have a "competent common school education" and a diploma from a medical college in the United States, or a diploma or license giving the right to practice in some foreign country. If graduated after July 1, 1895, he must have studied medicine four years, including three courses of lectures. Persons holding licenses in other States having equal requirements shall receive a license without further examination. (Act of May 18, 1893.) Hon. James W. Latta, Secretary of Medical Council of Pennsylvania, Harrisburg, Pa.

Rhode Island.—Authority to practice medicine "shall be a certificate from the State board of health, and said board shall, upon application, after examination, issue a certificate to any reputable physician who intends to practice medicine or surgery in this State and who shall present himself before the State board of health and pass in a satisfactory manner such examination as said board may require." (Ch. 165 of

the General Laws as amended November, 1901.) Dr. G. T. Swarts, Secretary of State Board of Health, Providence, R. I.

South Carolina.—Examination and diploma of a recognized medical college. Graduates of medical colleges in South Carolina having a four-years' course are exempt from examination. There is no provision for reciprocity. (Act of 1893 as amended February 15, 1901.) Dr. S. C. Baker, Secretary of State Board of Medical Examiners, Sumter, S. C.

South Dakota.—Examination and diploma from a recognized medical college having a four-years' course of study of not less than twenty-six weeks each. The law provides for reciprocity with the District of Columbia and any State or Territory of the United States. (Act of March 5, 1903.) Dr. H. E. McNutt, Secretary of State Board of Medical Examiners, Aberdeen, S. Dak.

Tennessee.—Examination. No provision of law for reciprocity. (Act of April 22, 1901.) Dr. T. J. Happel, Secretary of State Board of Medical Examiners, Trenton, Tenn.

Texas.—Examination. The law permits the registration of persons who have been licensed in any other State or Territory having equal standards of requirements. (Act of February 22, 1901.) Dr. M. M. Smith, Secretary of Board of Medical Examiners for the State of Texas, Austin, Tex.; Dr. N. O. Brenizer, Secretary of Board of Homeopathic Medical Examiners of the State of Texas, Austin, Tex.; Dr. L. S. Downs, Secretary of Board of Eclectic Medical Examiners of the State of Texas, Galveston, Tex.

Utah.—Examination and diploma of a medical college in good standing. (Acts of 1892 and 1894.) Dr. R. W. Fisher, Secretary of State Board of Medical Examiners, Salt Lake City, Utah.

Vermont.—Examination and diploma of a medical college or university. The law provides for reciprocity. (Sec. 4633 of Vermont Statutes.) Dr. C. W. Strobell, Secretary of Board of Censors of the Vermont State Medical Society, Rutland, Vt.; Dr. E. B. Whitaker, Secretary of Homeopathic Board of Censors, Barre, Vt.; Dr. P. L. Templeton, Secretary of Eclectic Board of Censors, Montpelier, Vt.

Virginia.—Examination and a medical diploma. "The said board shall have, in their discretion, authority to accept in lieu of examination of an applicant a diploma or other satisfactory evidence of the graduation of the applicant in some medical college chartered by the State or Territory in which the same is situated, and a certificate from the examining board of any State or Territory of the United States or the District of Columbia, showing that said applicant has passed a satisfactory examination as to his proficiency, and obtained license from said board to practice medicine and surgery in said State, Territory, or District." (Act of April 23, 1903.) Dr. R. S. Martin, Secretary of State Board of Medical Examiners, Stuart, Va.

Washington.—Examination. Applicants must have graduated from a medical college "now having at least a three years' graded course." The law provides for reciprocity with any State of the United States. (Act of Feb. 18, 1901.) Dr. T. B. Swearingen, Secretary of State Board of Medical Examiners, Tacoma, Wash.

West Virginia.—Examination. There is no provision for reciprocity. (Act of 1895.) Dr. A. R. Barbee, Secretary of State Board of Health, Point Pleasant, W. Va.

Wisconsin.—Examination. An applicant must have a diploma from a reputable medical college that requires at least four courses of not less than seven months each and an elementary education equivalent to that necessary to enter the junior year of an accredited high school of the State, and after the year 1906 requires a preliminary education equivalent to graduation from such high school. Applicants presenting licenses from other States accompanied by a diploma from a reputable medical college may be licensed without examination, at the discretion of the board. (Act of May 22, 1903.) Dr. F. A. Forsbeck, Secretary of State Board of Medical Examiners, Milwaukee, Wis.

Wyoming.—Examination or diploma of a college which is "a member of the American Association of Medical Colleges, the Homeopathic Institutes, or the National Eclectic Medical Association, or any college of similar standing in foreign countries." The law does not provide for reciprocity. (Act of Feb. 14, 1899.) Dr. G. P. Johnston, Secretary of State Board of Medical Examiners, Cheyenne, Wyo.

III. LEGAL PROVISIONS GOVERNING THE PRACTICE OF DENTISTRY IN THE SEVERAL STATES.

ALABAMA.

Board of dental examiners consists of five members elected by the Alabama Dental Association for terms of five years.

Requirements for licensure.—Examination by the board of dental examiners.

Penalty for violation.—Contracts void unless dentist is licensed. (Ch. 34, Code of 1896, as amended by act of March 4, 1901.)

ARIZONA.

Territorial board of dental examiners consists of five resident practicing dentists, graduates from some reputable dental college duly authorized to grant degrees in dentistry, appointed by the governor for terms of four years.

Requirements for licensure.—Examination by the Territorial board of dental examiners. Applicants for examination shall (1) furnish satisfactory evidence of having graduated from a reputable dental college of the United States, which must be a member of the National Association of Dental College Faculties; or (2) shall have graduated from a high school or similar institution of learning in Arizona or some other State or Territory of the United States, requiring a four years' course of study, and have completed an apprenticeship of three years of twelve months each with a licensed practitioner of dentistry; or (3) furnish a certificate from the State board of dental examiners, or similar body of some other State or Territory of the United States, showing that he or she has been a licensed practitioner of dentistry in that State or Territory for at least five years.

Penalty for violation.—Fine of $100 to $200, or imprisonment of three to six months, or both, for each and every offense. (Act of March 17, 1903.)

ARKANSAS.

Board of dental examiners consists of five reputable practicing dentists recommended by the State Dental Society and appointed by the governor for terms of two years.

Requirements for licensure.—Examination by the board of dental examiners, or a diploma from a reputable college of dentistry may be accepted by the board.

Penalty for violation.—Fine of $5 to $25; every day of engagement or attempted engagement in illegal practice being considered a separate offense. (Act of May 23, 1901.)

CALIFORNIA.

Board of dental examiners of California consists of seven reputable and ethical practicing dentists appointed by the governor for terms of four years. None of the members of the board shall be members of the faculty of any dental college or shall have any financial interest in such college.

Requirements for licensure.—Examination by the board of dental examiners of California. Applicants for examination must have graduated from a reputable dental

college of the United States of America, which must have been indorsed by the board of dental examiners of California, and be a member of the National Association of Dental College Faculties; or shall have graduated from a high school or similar institution in the United States, requiring a four years' course of study, and give evidence of completion of apprenticeship of three years of twelve months each with a licensed practitioner of dentistry in California, or furnish a certificate from the State board of dental examiners or similar body of some other State in the United States, showing that he or she has been a licensed practitioner in that State for at least five years.

Penalty for violation.—First offense, fine of $50 to $200; subsequent offenses, fine of $250 to $500, or imprisonment for six months. (Act of March 23, 1901.)

COLORADO.

State board of dental examiners consists of five practitioners of dentistry, three of whom are chosen from a list recommended by the State Dental Association, appointed by the governor with the consent of the senate.

Requirements for licensure.—Examination by the board of dental examiners, the prerequisite being a diploma of graduation from some reputable dental college, school, or university dental department in any of the United States.

Penalty for violation.—Fine of $100 to $300; each day of illegal practice being regarded as a separate offense. (Act of April 17, 1897.)

CONNECTICUT.

Board of dental commissioners consists of five practicing dentists of not less than ten years' experience in practice, appointed biennially by the governor for terms of two years.

Requirements for licensure.—Examination by the dental commissioners. An applicant for examination shall have received a diploma or other sufficient certificate of graduation from some reputable dental college, or medical college having a department of dentistry and recognized by the laws of the State wherein the same is situated, or shall have spent three years under the instruction of some reputable dentist, or shall have had at least three years' continuous practice as a dentist.

Penalty for violation.—Fine not exceeding $50 for each offense; the unlawful practice of dentistry for each week being considered a separate offense. (General Statutes of 1902, secs. 4740–4751.)

DELAWARE.

Board of dental examiners consists of five reputable practicing dentists, appointed by the governor for terms of four years.

Requirements for licensure.—Examination by the board. Assistants in practice must pass same examination.

Penalty for violation.—Fine of $50 to $300, or imprisonment of not more than six months. (Act of March 31, 1885, as amended March 23, 1899.)

DISTRICT OF COLUMBIA.

Board of dental examiners consists of five reputable dentists who have for three years prior to their appointment been actively engaged in the practice of dentistry in the District of Columbia, appointed by the Commissioners of said District for terms of five years.

Requirements for licensure.—Examination by the board of dental examiners, or graduation from a dental college requiring a three years' course of study.

Penalty for violation.—Fine of $50 to $200, or imprisonment of thirty to ninety days. (Act of Congress of June 6, 1892.)

FLORIDA.

Board of dental examiners consists of five dentists who have practiced in the State not less than three years, appointed by the governor for terms of two years.

Requirements for licensure.—Examination by the board.

Penalty for violation.—Fine of not more than $500, nor more than six months' imprisonment, or both. (Revised Statutes of 1892, secs. 828 and 829; act of June 3, 1899.)

GEORGIA.

Board of dental examiners consists of five members, appointed by the governor for terms of five years; one member is appointed each year from four names of dentists selected by the State Dental Society.

Requirements for licensure.—Board shall examine all applicants furnishing satisfactory evidence of having graduated from a reputable school of dentistry, or having been licensed after examination by any other State board, and if such applicant pass a satisfactory examination, a license to practice dentistry shall be granted.

Penalty for violation.—Fine of not more than $1,000, or imprisonment not to exceed six months; or work in the chain gang not to exceed twelve months; any one or more of these punishments. (Code of 1895, vol. 3, sec. 1037; act of December 15, 1897.)

IDAHO.

State board of dental examiners consists of five practicing dentists appointed by the governor.

Requirements for licensure.—Examination by the board of dental examiners. Applicant must have had three years' experience in a dental office, possess a certificate from some other State board, or a diploma from a legally authorized dental college.

Penalty for violation.—Fine of $50 to $200. (Act of February 16, 1899.)

ILLINOIS.

State board of dental examiners consists of five practicing dentists, appointed by the governor for terms of five years.

Requirements for licensure.—Examination by the board, or diploma from some reputable dental college, or an M. D. diploma from any reputable medical college, or ten years' practice in another State.

Penalty for violation.—Fine of $25 to $100. (Act of May 30, 1881, as amended April 24, 1899.)

INDIANA.

State board of dental examiners consists of five practicing dentists, one appointed by the governor, one by the State board of health, and three by the State Dental Association.

Requirements for licensure.—Diploma from a reputable dental college, or examination.

Penalty for violation.—Fine of $25 to $200. (Act of March 6, 1899.)

IOWA.

State board of dental examiners consists of five practicing dentists, appointed by the governor from a list submitted by the State Dental Society.

Requirements for licensure.—Examination by the board of dental examiners. Applicant for license must be a graduate of a reputable dental school recognized by the board.

Penalty for violation.—Fine not exceeding $200, or imprisonment not exceeding forty days, or both. (Act of April 16, 1900.)

KANSAS.

State board of dental examiners consists of three practicing dentists appointed by the governor for terms of four years.

Requirements for licensure.—Examination by the State board of dental examiners or a diploma from the faculty of some reputable dental college, school, or university department in good standing, duly authorized by the laws of this State or some other of the United States, or the laws of some foreign government, and in which college, school, and university department there was, at the time of issuance of such diploma, annually delivered a full course of lectures and instructions in dentistry or dental surgery.

Penalty for violation.—Fine of $25 to $100. (Act of Feb. 24, 1903.)

KENTUCKY.

Board of dental examiners consists of five examiners, members of the State Dental Association, elected by the association.

Requirements for licensure.—Examination by the board of dental examiners, or diploma from a dental college authorized by the laws of this State, or some other of the United States, or a foreign country.

Penalty for violation.—Fine of $50 to $200 for each offense. (Act of May 1, 1893.)

LOUISIANA.

Louisiana State board of dentistry consists of five dentists, appointed by the governor for terms of seven years.

Requirements for licensure.—A certificate of qualification from the Louisiana State board of dentistry. The board is required to prescribe in its regulations what conditions shall constitute a good standing for a dental college and shall issue certificates of good standing to colleges fulfilling said conditions.

Penalty for violation.—Fine not exceeding $100, or imprisonment not exceeding three months, or both. (Act filed July 3, 1900.)

MAINE.

Board of dental examiners consists of five dentists, appointed by the governor, with the advise of the council, for terms of three years.

Requirements for licensure.—Examination by the board of dental examiners.

Penalty for violation.—Fine of $25 to $100 for each offense. (Statutes of Maine, 1885–1895, Freeman's Supplement.)

MARYLAND.

State board of dental examiners consists of six practicing dentists, appointed by the governor out of a list of nine dentists proposed by the State Dental Association.

Requirements for licensure.—Applicant for registration must have a diploma from a university or college of any State authorized to grant diplomas in dentistry, and may be examined by the board. A graduate of a regular college of dentistry may be exempted from examination.

Penalty for violation.—Fine of $50 to $300, or six months' imprisonment. (Laws of 1896, ch. 378.)

MASSACHUSETTS.

Board of registration in dentistry consists of five members appointed by the governor, with the advice and consent of the council, for terms of three years.

Requirements for licensure.—Examination by the board.

Penalty for violation.—Fine of $50 to $100, or three months' imprisonment. (Revised Laws of Massachusetts, 1902, ch. 76, secs. 24, 26, 28.)

MICHIGAN.

Board of dental examiners consists of three dentists, appointed by the governor.

Requirements for licensure.—Examination, or diploma from any reputable dental college with a course of instruction and practice equivalent to that of the college of dental surgery of the University of Michigan.

Penalty for violation.—Fine of $25 to $100, or imprisonment for ninety days, or both. (Compiled Laws, 1897.)

MINNESOTA.

Board of dental examiners consists of five resident practicing dentists, appointed by the governor for terms of three years from a list presented to him by the State Dental Association.

Requirements for licensure.—Examination by the State board upon presentation of a diploma of a dental college, approved by the board.

Penalty for violation.—Fine of $20 to $100, or imprisonment of one to three months, or both. (Laws of 1889, ch. 19.)

MISSISSIPPI.

Board of dental examiners consists of five practicing dentists, appointed by the governor for terms expiring with that of the governor appointing them.

Requirements for licensure.—Examination by the board.

Penalty for violation.—Fine of not more than $500 and imprisonment in the county jail not more than six months, or either. (Annotated Code of 1892, secs. 1454, 1528–1531.)

MISSOURI.

Board of dental examiners consists of five members, appointed by the governor for terms of five years.

Requirements for licensure.—Diploma from some reputable dental college, or examination by the board. Applicants for examination shall have studied dentistry in this State for three years, or have a license from the dental board of another State.

Penalty for violation.—Fine of $50 to $200, or from twenty to sixty days' imprisonment, or both. (Revised Statutes of 1899, secs. 8526, 8528, 8529, 8534.)

MONTANA.

Board of dental examiners consists of five practicing dentists, appointed by the governor for terms of five years.

Requirements for licensure.—Diploma, or examination by board. Applicants for examination shall give satisfactory evidence of having practiced three years or having been a bona fide student for three years under a licensed dentist.

Penalty for violation.—Fine of $50 to $200, or from one to three months' imprisonment, or both. (Code of 1895, secs. 621, 624, 631.)

NEBRASKA.

The State board of health appoints three secretaries for terms of three years from a list furnished by the State Dental Society, who grant certificates.

Requirements for licensure.—Examination by the secretaries of the State board of health, or diploma from a reputable dental college.

Penalty for violation.—Fine of $25 to $50 for each offense. (Compiled Statutes, 1903, chap. 55, Art. II.)

NEVADA.

Board of dental examiners consists of five practicing dentists, appointed by the governor for terms of four years, from nominations made by the Nevada State Dental Society. The society must nominate twice the number to be appointed, and at least three of the members appointed must be members of the Nevada State Dental Society.

Requirements for licensure.—Examination by the board of dental examiners, or diploma from any reputable dental college, when the board is satisfied of the character of such institution.

Penalty for violation.—Fine of $50 to $200, or imprisonment for six months. (Act of March 16, 1895.)

NEW HAMPSHIRE.

State board of registration in dentistry consists of three practicing dentists, appointed by the governor with the advice of the council.

Requirements for licensure.—Examination by the board.

Penalty for violation.—Fine not exceeding $100 for each offense. (Statutes and laws of 1901, chap. 134.)

NEW JERSEY.

Board of registration and examination in dentistry consists of five members, appointed by the governor for terms of five years upon recommendation of the State Dental Society.

Requirements for licensure.—Examination by the board. No person shall be examined by said board unless he has received a good common school education and a diploma from a dental school recognized by said board, or shall present the written recommendation of at least five licensed dentists of this State of five years' standing, certifying that he is qualified for such examination, or shall hold a diploma or license to practice in some foreign country and granted by some authority recognized by the board. The board may license without examination any applicant who has been duly licensed after examination in any other State, provided his professional education shall not be less than that required in this State.

Penalty for violation.—Fine of not less than $50 for first offense; subsequent offenses, fine of not less than $100, or imprisonment not less than two months, or both. (Act approved March 17, 1898, as amended March 22, 1901.)

NEW MEXICO.

Board of dental examiners consists of five practicing dentists, appointed by the governor for terms of four years.

Requirements for licensure.—Examination by the board, or a diploma from a college recognized by the National Association of Dental Examiners.

Penalty for violation.—Fine of $20 to $100, or imprisonment from one to three months, or both. (Law of 1897, secs. 3733, 3736, 3742.)

NEW YORK.

The State board of dental examiners is appointed by the board of regents of the university of the State from nominations made by the (State Dental) Society.

Requirements for licensure.—Examination by the board, the prerequisites being an education equivalent to that of the State high schools, a degree from a registered dental school, or a diploma or license to practice dentistry in some foreign country granted by some registered authority.

Penalty for violation.—First offense, fine of $50; for subsequent offenses fine of $100 or two months' imprisonment, or both. (Revised Statutes, by C. F. Birdseye, 1901; Public Health Law, Art. IX.)

NORTH CAROLINA.

Board of dental examiners consists of six members of the North Carolina Dental Society elected by the said society at its annual meetings for terms of three years.

Requirements for licensure.—Examination by the board of dental examiners.

Penalty for violation.—Fine of $25. (Code of 1883, sec. 3149–3154; act of March 3, 1887; act of March 3, 1891.)

NORTH DAKOTA.

Board of dental examiners consists of five dentists practicing in the State, appointed by the governor for terms of five years.

Requirements for licensure.—Diploma from a reputable dental college, or examination by the board. Applicant for examination must have been engaged in active practice for at least three years preceding, or have studied under a regularly practicing dentist for such period.

Penalty for violation.—Fine not exceeding $300, or sixty days' imprisonment, or both. (Revised Codes of North Dakota, 1895, secs. 293, 296, 299.)

OHIO.

State board of dental examiners consists of five practicing dentists, not members of dental college faculties, appointed by the governor for terms of three years.

Requirements for licensure.—Examination by the State board of dental examiners. Applicants for examination must present a diploma from some legally chartered dental college. The board shall excuse from examination all graduates of dental colleges of the State of Ohio up to and including the June, 1905, session of the board. Upon a unanimous vote of the board, said board may excuse from examination an applicant holding a license to practice in some State requiring a diploma and examination.

Penalty for violation.—Fine of $25 to $100, or imprisonment of ten days to one month, or both. (Sec. 6991 of Bates's Annotated Ohio Statutes, 1900, and act of May 10, 1902.)

OKLAHOMA.

The board of dental examiners consists of five practicing dentists, appointed by the governor.

Requirements for licensure.—Examination by the board, or diploma.

Penalty for violation.—Fine of $25 to $200, or six months' imprisonment, or both. (Revised Statutes of Oklahoma, 1903.)

OREGON.

State board of dental examiners consists of five members, appointed by the governor from a list furnished him by the State Dental Association.

Requirements for licensure.—Examination by the board of dental examiners. An applicant for examination must present a diploma from some reputable dental college (i. e., a member of the National Association of Dental Faculties).

Penalty for violation.—Fine of $50 to $200, or six months' imprisonment. (Bellinger and Cotton's Codes and Statutes of Oregon, 1902, Vol. II, Title XXV, Chap. VIII.)

PENNSYLVANIA.

Board of dental examiners consists of six practicing dentists of ten years standing, appointed by the governor from a list furnished by the State Dental Society. The examinations by this board are supervised by the "Dental Council" of the State.

Requirements for licensure.—Examination (including satisfactory evidence of practical proficiency in manipulation) and diploma from an institution in the United States recognized by the board of examiners as competent, or a diploma or license to practice dentistry in a foreign country. Holders of licenses from State boards of dental examiners or of health of other States may be exempt from examination.

Penalty for violation.—Fine of $50 to $200 for each offense. (Pepper and Lewis Digest, Supplement, 1894–1897.)

RHODE ISLAND.

The board of registration in dentistry consists of five graduates in dentistry practicing within the State, appointed by the governor, with the advice and consent of the senate, for three years.

Requirements for licensure.—Examination by the board of registration in dentistry.

Penalty for violation.—Fine of $50 to $100 for each and every offense. (Chap. 155, General Laws of 1896, as amended by acts of May 21, 1897, and January 29, 1901.)

SOUTH CAROLINA.

State board of dental examiners consists of five members elected by the State Dental Association.

Requirements for licensure.—Examination by the board.

Penalty for violation.—Fine of $50 to $300, or imprisonment, or the chain gang from one to twelve months. (Code of South Carolina, 1902.)

SOUTH DAKOTA.

State board of dental examiners consists of five practicing dentists, appointed by the governor for terms of five years from names furnished by the South Dakota State Dental Society. The society must furnish twice the number of names as there are appointments to be made.

Requirements for licensure.—Examination by the State board of dental examiners, but the board may issue a license without examination to an applicant having a diploma from a reputable dental college or dental department at any university. An applicant for examination other than a graduate must furnish evidence that he has been engaged in the active practice of dentistry for at least three years immediately preceding such examination, or that he has pursued the study of dentistry in the office or under the supervision of a regular practicing dentist for such period.

Penalty for violation.—Fine of not exceeding $100, or imprisonment not exceeding thirty days, or both. (Acts of March 7, 1901, and March 11, 1903.)

TENNESSEE.

Board of dental examiners consists of six practicing dentists, appointed by the governor for terms of three years.

Requirements for licensure.—Acceptable diploma or examination by the board.

Penalty for violation.—Fine of $25 to $300. (Code of 1896, secs. 2627, 2628, 2631, 2634.

TEXAS.

State board of dental examiners consists of six practicing dentists, appointed by the governor for terms of two years.

Requirements for licensure.—Examination by the State board of dental examiners or a diploma from some reputable dental college, school, or university department

duly authorized by the laws of this State or some other of the United States or some foreign country.

Penalty for violation.—Fine of $25 to $300 for each offense, each day in the practice constituting a separate offense. (Chap. 97, Laws of 1897.)

UTAH.

The board of dental examiners consists of five members, appointed by the governor, with the advice and consent of the Senate, from practicing dentists in the State.

Requirements for licensure.—Examination by the board. Applicant for examination must have practiced dentistry for two years or have been a bona fide student for three years under a licensed dentist, or must possess a diploma from some dental college recognized by the National Association of Dental Examiners.

Penalty for violation.—Fine not exceeding $300, or imprisonment for six months, or both. (Revised Statutes, 1898, as amended by act of March 12, 1903.)

VERMONT.

Board of dental examiners consists of five dental graduates or practitioners, appointed by the governor biennially for terms of two years.

Requirements for licensure.—Examination by the board of dental examiners.

Penalty for violation.—Fine of $25 to $100. (Vermont Statutes, 1894, chap. 191; act of Nov. 8, 1898.)

VIRGINIA.

State board of dental examiners consists of six dentists of acknowledged ability, appointed by the governor for terms of three years.

Requirements for licensure.—Diploma from a reputable dental college or examination approved by at least four members of the board.

Penalty for violation.—Fine of $50 to $200. (Code of 1887, secs. 1768–1769, 1772.)

WASHINGTON.

Board of dental examiners consists of five practicing dentists, appointed by the governor for terms of two years.

Requirements for licensure.—Examination by the board of dental examiners. An applicant for examination must present a diploma from some dental college in good standing.

Penalty for violation.—Fine of $50 to $200 or imprisonment for not exceeding six months for each and every offense. (Ballinger's Annotated Codes and Statutes, 1897, as amended by act of March 18, 1901.)

WEST VIRGINIA.

The board of dental examiners consists of five practicing dentists, appointed by the governor.

Requirements for licensure.—Examination by the board.

Penalty for violation.—Fine of $50 to $200 or imprisonment from one to three months, or both. (Act of February 20, 1897.)

WISCONSIN.

State board of dental examiners consists of five practicing dentists, at least three of whom shall be members of the Wisconsin State Dental Society, appointed by the governor for terms of five years.

Requirements for licensure.—Examination by the State board of dental examiners, or graduation from a reputable dental college in which the applicant shall have pursued four full courses of lectures of at least seven months each and which requires for admission thereto a preliminary education equivalent to that required for entrance to the junior class of an accredited high school; or, if the applicant has attended such college from which he received his diploma only during the last full course, he shall have received his dental education prior to said last course in a dental college having an equal standard as to course of study and preliminary requirements. An applicant for examination shall be a graduate of a duly incorporated and reputable dental college, or shall have been engaged in the reputable practice of dentistry consecutively for four years immediately preceding his application for examination, or shall have served as an apprentice to a dentist engaged in the reputable practice of dentistry for a period of five years. Graduates of reputable dental colleges in the State who are students therein at the time of the passage of this act (May 21, 1903) shall be licensed without examination.

Penalty for violation.—Fine of $10 to $100 for each offense. (Wisconsin Statutes, 1898, as amended by act of May 21, 1903.)

WYOMING.

Requirements for licensure.—Diploma from a dental college recognized by the National Association of Dental Examiners. Must be filed with county clerk, who files same and issues certificate.

Penalty for violation.—Fine of $50 to $200 or sixty days in jail, or both. (Revised Statutes, 1899, secs. 2207–2212.)

SUMMARY OF REQUIREMENTS FOR THE PRACTICE OF DENTISTRY.

1. *Require an examination.*—Alabama, Arizona, California, Colorado, Connecticut, Delaware, Florida, Georgia, Idaho, Iowa, Maine, Massachusetts, Minnesota, Mississippi, New Hampshire, New Jersey (license of other State board requiring an examination may be accepted), New York, North Carolina, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Utah, Vermont, Washington, West Virginia (27).

(*a*) Of the above (1), the following require a reputable diploma of applicants for examination: Colorado, Iowa, Minnesota, Ohio, Oregon, Washington (6).

(*b*) Of the above (1), the following require of applicants for examination a diploma, or, in lieu thereof, a certain period of apprenticeship and a high school education, or license of another State board: Arizona, California (2).

(*c*) Of the above (1), the following requires of applicants for examination a diploma, or, in lieu thereof, a certain period of practice or instruction under a dentist: Connecticut.

(*d*) Of the above (1), the following requires of applicants for examination a diploma, or, in lieu thereof, a license after examination by another State board: Georgia.

(*e*) Of the above (1), the following requires of applicants for examination a diploma, or, in lieu thereof, three years' apprenticeship or license of another State: Idaho.

(*f*) Of the above (1), the following requires of applicants for examination a diploma, or, in lieu thereof, two years' practice or three years' study under a dentist: Utah.

(*g*) Of the above (1), the following requires of applicants for examination a common school education and either a diploma or the recommendation of five dentists, or a diploma or license to practice in a foreign country: New Jersey.

(*h*) Of the above (1), the following requires of applicants for examination a high school education and either a diploma of a registered dental college or a diploma or license to practice in a foreign country: New York.

(*i*) Of the above (1), the following requires of applicants for examination a diploma of a dental college or a diploma or license to practice in a foreign country: Pennsylvania.

2. *Require an examination or diploma.*—Arkansas, District of Columbia, Illinois (or ten years' practice), Indiana, Kansas, Kentucky, Louisiana, Maryland, Michigan, Missouri, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, South Dakota, Tennessee, Texas, Virginia, Wisconsin (diploma must be granted after four years' course with certain preliminary educational attainments) (21).

(*a*) South Dakota requires three years' practice or apprenticeship of applicants for examination.

3. *Requires a diploma.*—Wyoming (1).

UNIV. OF CALIFORNIA

CHAPTER I.

GENERAL LAWS RELATING TO AGRICULTURAL AND MECHANICAL LAND GRANT COLLEGES.

ACTS OF CONGRESS.

AN ACT donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there be granted to the several States, for the purposes hereinafter mentioned, an amount of public land, to be apportioned to each State a quantity equal to 30,000 acres for each Senator and Representative in Congress to which the States are respectively entitled by the apportionment under the census of 1860: *Provided*, That no mineral lands shall be selected or purchased under the provisions of this act.

SEC. 2. *And be it further enacted*, That the land aforesaid, after being surveyed, shall be apportioned to the several States in sections or subdivisions of sections, not less than one-quarter of a section; and wherever there are public lands in a State, subject to sale at private entry at one dollar and twenty-five cents per acre, the quantity to which said State shall be entitled shall be selected from such lands, within the limits of such State; and the Secretary of the Interior is hereby directed to issue to each of the States, in which there is not the quantity of public lands subject to sale at private entry, at one dollar and twenty-five cents per acre, to which said State may be entitled under the provisions of this act, land scrip to the amount in acres for the deficiency of its distributive share: said scrip to be sold by said States, and the proceeds thereof applied to the uses and purposes prescribed in this act, and for no other use or purpose whatsoever: *Provided*, That in no case shall any State to which land scrip may thus be issued be allowed to locate the same within the limits of any other State, or of any territory of the United States; but their assignees may thus locate said land scrip upon any of the unappropriated lands of the United States subject to sale at private entry at one dollar and twenty-five cents, or less, an acre: *And provided further*, That not more than one million acres shall be located by such assignees in any one of the States: *And provided further*, That no such location shall be made before one year from the passage of this act.

SEC. 3. *And be it further enacted*, That all the expenses of management, superintendence and taxes from date of selection of said lands, previous to their sales, and all expenses incurred in the management and disbursement of moneys which may be received therefrom, shall be paid by the States to which they may belong, out of the Treasury of said States, so that the entire proceeds of the sale of said lands shall be applied, without any diminution whatever, to the purposes hereinafter mentioned.

SEC. 4. *And be it further enacted*, That all moneys derived from the sale of the lands aforesaid by the States to which the lands are apportioned, and from the sales of land scrip hereinbefore provided for, shall be invested in stocks of the United States, or of the States, or some other safe stocks, yielding not less than five per centum upon the par value of said stocks; and that the moneys so invested shall constitute a perpetual fund, the capital of which shall remain forever undiminished, except so far as may be provided in section fifth of this act, and the interest of which shall be inviolably appropriated, by each State which may take and claim the benefit of this act, to the endowment, support, and maintenance of, at least, one college, where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such

manner as the Legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life.

SEC. 5. *And be it further enacted*, That the grant of land and land scrip hereby authorized shall be made on the following conditions, to which, as well as to the provisions hereinbefore contained, the previous assent of the several States shall be signified by legislative acts:

First, If any portion of the fund invested, as provided by the foregoing section, or any portion of the interest thereon, shall, by any action or contingency, be diminished or lost, it shall be replaced by the State to which it belongs, so that the capital of the fund shall remain forever undiminished; and the annual interest shall be regularly applied without diminution to the purposes mentioned in the fourth section of this act, except that a sum, not exceeding ten per centum upon the amount received by any State under the provisions of this act, may be expended for the purchase of lands for sites or experimental farms, whenever authorized by the respective Legislatures of said States;

Second, No portion of said fund, nor the interest thereon, shall be applied, directly or indirectly, under any pretense whatever, to the purchase, erection, preservation, or repair of any building or buildings;

Third, Any State which may take and claim the benefit of the provisions of this act shall provide, within five years, at least not less than one college, as prescribed in the fourth section of this act, or the grant to such State shall cease; and said State shall be bound to pay the United States the amount received of any lands previously sold, and that the title to purchasers under the State shall be valid;

Fourth, An annual report shall be made regarding the progress of each college, recording any improvements and experiments made, with their costs and results, and such other matters, including State industrial and economical statistics, as may be supposed useful; one copy of which shall be transmitted by mail free, by each, to all the other colleges which may be endowed under the provisions of this act, and also one copy to the Secretary of the Interior;

Fifth, When lands shall be selected from those which have been raised to double the minimum price in consequence of railroad grants, they shall be computed to the States at the maximum price, and the number of acres proportionally diminished;

Sixth, No State, while in a condition of rebellion or insurrection against the government of the United States, shall be entitled to the benefit of this act;

Seventh, No State shall be entitled to the benefits of this act unless it shall express its acceptance thereof by its Legislature within two years from the date of its approval by the President.

SEC. 6. *And be it further enacted*, That land scrip issued under the provisions of this act shall not be subject to location until after the first day of January, 1863.

SEC. 7. *And be it further enacted*, That land officers shall receive the same fees for locating land scrip issued under the provisions of this act as is now allowed for the location of military bounty land warrants under existing laws: *Provided*, That maximum compensation shall not be thereby increased.

SEC. 8. *And be it further enacted*, That the Governors of the several States to which scrip shall be issued under this act shall be required to report annually to Congress all sales made of such scrip until the whole shall be disposed of, the amount received for the same, and what appropriation has been made of the proceeds. (Approved, July 2, 1862.)

AN ACT To establish agricultural experiment stations in connection with the colleges established in the several States under the provisions of an act approved July second, eighteen hundred and sixty-two, and of the acts supplementary thereto.

SECTION 1. *Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That in order to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientic investigation and experiment respecting the principles and applications of agricultural science, there shall be established, under direction of the college or colleges, or agricultural department of colleges, in each State or Territory established, or which may hereafter be established in accordance with the provisions of an act approved July second, eighteen hundred and sixty-two, entitled "An act donating public lands to the several states and territories which may provide colleges for the benefit of agriculture and the mechanic arts," or any of the supplements of said act, a department to be known and designated as an "agricultural experiment station:" *Provided*, That in any State or Territory in which two such colleges have been or may be so established, the appropriation hereinafter made to such State or Territory

shall be equally divided between such colleges, unless the legislature of such state or territory shall otherwise direct.

SEC. 2. That it shall be the object and duty of said experiment stations to conduct original researches or verify the experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and water; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibilty of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective States or Territories.

SEC. 3. That in order to secure as far as practicable uniformity of methods and results in the work of said stations it shall be the duty of the United States commissioner of agriculture to furnish forms, as far as practicable, for the tabulation of results of investigation or experiments; to indicate, from time to time, such lines of inquiry as to him shall seem most important; and in general, to furnish such advice and assistance as will best promote the purposes of this act. It shall be the duty of each of said stations annually, on or before the first day of February, to make to the governor of the State or Territory in which it is located, a full and detailed report of its operations, including a statement of receipts and expenditures, a copy of which report shall be sent to each of said stations, to the said commissioner of agriculture, and to the secretary of the treasury of the United States.

SEC. 4. That bulletins or reports of progress shall be published at said stations at least once in three months, one copy of which shall be sent to each newspaper in the States and Territories in which they are respectively located, and to such individuals actually engaged in farming as may request the same, and as far as the means of the station will permit. Such bulletins or reports, and the annual reports of said stations, shall be transmitted in the mails of the United States free of charge for postage, under such regulations as the postmaster general may from time to time prescribe.

SEC. 5. That for the purpose of paying the necessary expenses of conducting investigations and experiments, and printing and distributing the results as hereinbefore prescribed, the sum of $15,000 is hereby appropriated to each State to be specially provided for by Congress in the appropriations from year to year, and to each territory entitled under the provisions of section eight of this act, out of any money in the treasury proceeding from the sales of public lands, to be paid in equal quarterly payments on the first day of January, April, July and October in each year, to the treasurer or other officer duly appointed by the governing boards of said colleges to receive the same, the first payment to be made on the first day of October, 1887: *Provided, however*, That out of the first annual appropriation so received by any station an amount not exceeding one-fifth may be expended in the erection, enlargement or repair of a building or buildings necessary for carrying on the work of such station; and thereafter an amount not exceeding five per centum of such annual appropriation may be so expended.

SEC. 6. That whenever it shall appear to the secretary of the treasury from the annual statement of receipts and expenditures of any of said stations, that a portion of the preceding annual appropriation remains unexpended, such amount shall be deducted from the next succeeding annual appropriation to such station, in order that the amount of money appropriated to any station shall not exceed the amount actually and necessarily required for its maintenance and support.

SEC. 7. That nothing in this act shall be construed to impair or modify the legal relation existing between any of the said colleges and the government of the States or Territories in which they are respectively located.

SEC. 8. That in States having colleges entitled under this section to the benefits of this act, and having also agricultural experiment stations established by law separate from said colleges, such States shall be authorized to apply such benefits to experiment stations so established by such States; and in case any State shall have established, under the provisions of said act of July second, aforesaid, an agricultural department or experimental station in connection with any university, college or institution not distinctively an agricultural college or school, and such State shall have established, or shall hereafter establish a separate agricultural college or

school, which shall have connected therewith an experimental farm or station, the Legislature of such State may apply in whole or in part the appropriation by this act made to such separate agricultural college or school: and no Legislature shall, by contract express or implied, disable itself from so doing.

SEC. 9. That the grants of money authorized by this act are made subject to the Legislative assent of the several States and territories to the purpose of said grants: *Provided*, That payment of such installments of the appropriation herein made as shall become due to any State before the adjournment of the regular session of its Legislature meeting next after the passage of this act, shall be made upon the assent of the Governor thereof duly certified to the secretary of the treasury.

SEC. 10. Nothing in this act shall be held or construed as binding the United States to continue any payments from the treasury to any or all the States or institutions mentioned in this act, but Congress may at any time amend, suspend or repeal any or all of the provisions of this act. (Approved, March 2, 1887.)

AN ACT To apply a portion of the proceeds of the public lands to the more complete endowment and support of the colleges for the benefit of agriculture and the mechanic arts established under the provisions of an act of Congress approved July second, eighteen hundred and sixty-two.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there shall be, and hereby is, annually appropriated, out of any money in the Treasury not otherwise appropriated, arising from the sale of public lands, to be paid as hereinafter provided, to each State and Territory for the more complete endowment and maintenance of colleges for the benefit of agriculture and the mechanic arts now established, or which may be hereafter established, in accordance with an act of Congress approved July second, eighteen hundred and sixty-two, the sum of fifteen thousand dollars for the year ending June thirtieth, eighteen hundred and ninety, and an annual increase of the amount of such appropriation thereafter for ten years by an additional sum of one thousand dollars over the preceding year, and the annual amount to be paid thereafter to each State and Territory shall be twenty-five thousand dollars to be applied only to instruction in agriculture, the mechanic arts, the English language and the various branches of mathematical, physical, natural and economic science, with special reference to their applications in the industries of life, and to the facilities for such instruction: *Provided*, That no money shall be paid out under this act to any State or Territory for the support and maintenance of a college where a distinction of race or color is made in the admission of students, but the establishment and maintenance of such colleges separately for white and colored students shall be held to be a compliance with the provisions of this act if the funds received in such State or Territory be equitably divided as hereinafter set forth: *Provided*, That in any State in which there has been one college established in pursuance of the act of July second, eighteen hundred and sixty-two, and also in which an educational institution of like character has been established, or may be hereafter established, and is now aided by such State from its own revenue, for the education of colored students in agriculture and the mechanic arts, however named or styled, or whether or not it has received money heretofore under the act to which this act is an amendment, the Legislature of such State may propose and report to the Secretary of the Interior a just and equitable division of the fund to be received under this act between one college for white students and one institution for colored students established as aforesaid, which shall be divided into two parts and paid accordingly, and thereupon such institution for colored students shall be entitled to the benefits of this act and subject to its provisions, as much as it would have been if it had been included under the act of eighteen hundred and sixty-two, and the fulfillment of the foregoing provisions shall be taken as a compliance with the provision in reference to separate colleges for white and colored students.

SEC. 2. That the sums hereby appropriated to the States and Territories for the further endowment and support of colleges shall be annually paid on or before the thirty-first day of July of each year, by the Secretary of the Treasury, upon the warrant of the Secretary of the Interior, out of the Treasury of the United States, to the State or Territorial treasurer, or to such officer as shall be designated by the laws of such State or Territory to receive the same, who shall, upon the order of the trustees of the college, or the institution for colored students, immediately pay over said sums to the treasurers of the respective colleges or other institutions entitled to receive the same, and such treasurers shall be required to report to the Secretary of Agriculture and to the Secretary of the Interior, on or before the first day of September of each year, a detailed statement of the amount so received and of its disbursement. The grants of moneys authorized by this act

are made subject to the legislative assent of the several States and Territories to the purpose of said grants: *Provided*, That payments of such installments of the appropriation herein made as shall become due to any State before the adjournment of the regular session of legislature meeting next after the passage of this act shall be made upon the assent of the governor thereof, duly certified to the Secretary of the Treasury.

SEC. 3. That if any portion of the moneys received by the designated officer of the State or Territory for the further and more complete endowment, support, and maintenance of colleges, or of institutions for colored students, as provided in this act, shall, by any action or contingency, be diminished or lost, or be misapplied, it shall be replaced by the State or Territory to which it belongs, and until so replaced no subsequent appropriation shall be apportioned or paid to such State or Territory; and no portion of said moneys shall be applied, directly or indirectly, under any pretense whatever, to the purchase, erection, preservation, or repair of any building or buildings. An annual report by the president of each of said colleges shall be made to the Secretary of Agriculture, as well as to the Secretary of the Interior, regarding the condition and progress of each college, including statistical information in relation to its receipts and expenditures, its library, the number of its students and professors, and also as to any improvements and experiments made under the direction of any experiment stations attached to said colleges, with their costs and results, and such other industrial and economical statistics as may be regarded as useful, one copy of which shall be transmitted by mail free to all other colleges further endowed under this act.

SEC. 4. That on or before the first day of July in each year, after the passage of this act, the Secretary of the Interior shall ascertain and certify to the Secretary of the Treasury as to each State and Territory whether it is entitled to receive its share of the annual appropriation for colleges, or of institutions for colored students, under this act, and the amount which thereupon each is entitled, respectively, to receive. If the Secretary of the Interior shall withhold a certificate from any State or Territory of its appropriation the facts and reasons therefor shall be reported to the President, and the amount involved shall be kept separate in the Treasury until the close of the next Congress, in order that the State or Territory may, if it should so desire, appeal to Congress from the determination of the Secretary of the Interior. If the next Congress shall not direct such sum to be paid it shall be covered into the Treasury. And the Secretary of the Interior is hereby charged with the proper administration of this law.

SEC. 5. That the Secretary of the Interior shall annually report to Congress the disbursements which have been made in all the States and Territories, and also whether the appropriation of any State or Territory has been withheld, and if so, the reasons therefor.

SEC. 6. Congress may at any time amend, suspend, or repeal any or all of the provisions of this act. (Approved, August 30, 1890.)

ALABAMA.

Constitution, 1875, Article XIII: SECTION 1. The general assembly shall establish, organize, and maintain a system of public schools throughout the State for the equal benefit of the children between the ages of 7 and 21 years, but separate schools shall be provided for the children of citizens of African descent. [This provision of the constitution is inserted here, as upon it a claim was based for the establishment of a "University for Colored People."]

SEC. 2. The principal of all funds arising from the sale or other disposition of lands or other property which has been or may hereafter be granted or intrusted to this State, or given by the United States for educational purposes, shall be preserved inviolate and undiminished; and the income arising therefrom shall be faithfully applied to the specific objects of the original grants or appropriations.

SEC. 3. All lands or other property * * * appropriated by the State for educational purposes * * * shall be faithfully applied to the maintenance of the public schools.

SEC. 8. No money raised for the support of the public schools of the State shall be appropriated to, or used for, the support of any sectarian or denominational school.

SEC. 9. The State university and the agricultural and mechanical college shall each be under the management and control of a board of trustees. * * * The board for the agricultural and mechanical college shall consist of two members from the Congressional district in which the college is located, and one from each

of the other Congressional districts in the State. Said trustees shall be appointed by the governor, by and with the advice and consent of the senate, and shall hold office for a term of six years, and until their successors shall be appointed and qualified. After the first appointment each board shall be divided into three classes, as nearly as may be. The seats of the first class shall be vacated at the expiration of two years, and those of the second class in four years, and those of the third class at the end of six years from the date of appointment, so that one-third may be chosen biennially. No trustee shall receive any pay or emolument other than his actual expenses incurred in the discharge of his duties as such. The governor shall be ex-officio president, and the superintendent of education ex-officio member of * * * said board of trustees.

SEC. 10. The general assembly shall have no power to change the location of the * * * agricultural and mechanical college, as now established by law, except upon a vote of two-thirds of the members of the general assembly, taken by yeas and nays, and entered upon the journal.

Article IV, Legislative Department: The legislative department [of Alabama] shall be vested in a general assembly, which shall consist of a senate and house of representatives.

SEC. 33. No money shall be paid out of the treasury except upon appropriations made by law, and on warrant drawn by the proper officer in pursuance thereof; and a regular statement and account of receipts and expenditures of all public moneys shall be published annually.

[The following matter is taken from the official work entitled "The Code of Alabama, with such statutes passed at the session of 1896-97 as are required to be incorporated therein."—Atlanta, Ga., 1897.]

Code of Alabama (1897), article 14: SEC. 3686. Incorporation of the college. The governor and the superintendent of education, by virtue of their respective offices, and the trustees appointed from the different Congressional districts of the States, under the provisions of section 9 of Article XIII of the constitution, and their successors in office, are constituted a body corporate under the name of the Agricultural and Mechanical College of Alabama, to carry into effect the purpose and intent of the Congress of the United States in the grant of lands by the act of July 2, 1862.

SEC. 3687. General powers, duties, and liabilities of college. Such corporation shall have all the rights, privileges, and franchises necessary to a promotion of the end of its creation, and shall be charged with all corresponding duties, liabilities, and responsibilities.

SEC. 3688. Credit of State pledged to payment of interest. For the payment of the interest, at the rate of 8 per cent per annum, on the fund of $253,500, arising from the sale of the scrip for the land donated in trust to this State by the act of Congress of July 2, 1862, the faith and credit of the State are forever pledged.

SEC. 3689. Powers of board of trustees. The board of trustees have the power to organize the college by appointing a corps of instructors, who shall be styled the faculty of the college, and such other instructors and officers as the interest of the college may require; and to remove any such instructors or officers, and to fix their salaries or compensation, and increase or reduce the same at their discretion; to regulate, alter, or modify the government of the college as they may deem advisable; to prescribe courses of instruction, rates of tuition, and fees; to confer such academic and honorary degrees as are usually conferred by institutions of similar character; and to do whatever else they may deem best for promoting the interest of the college. They shall also establish and maintain a military department in the college, and elect a commandant and such other officers as may be necessary for the department.

SEC. 3690. Classification of trustees. The trustees of the college are divided into three classes, as follows: The trustees from the fourth, fifth, seventh, and ninth districts shall constitute the first class; those from the eighth, sixth, and second districts shall constitute the second class, and those from the third and first districts shall constitute the third class; and they shall hold office and their seats be vacated as prescribed by the constitution.

SEC. 3691. Any vacancy in the office of trustee occurring during the recess of the legislature shall be filled by appointment of the governor, such appointee to hold until, at the next session of the legislature thereafter, such vacancy shall be filled by the governor, by and with the consent of the senate; and any trustee appointed to fill a vacancy by the governor, by and with the consent of the senate, shall hold during the unexpired term.

SEC. 3692. Time and place of meeting of trustees. The board of trustees shall hold their meetings at the seat of the college on the last Monday in June of each

year, unless the board shall in regular session determine to hold its meetings at some other time and place; and upon the application in writing of any four members of the board the governor shall appoint a special meeting, naming the time and place thereof, and cause notices thereof to be issued to the several members of the board, but such meeting shall not be appointed for a day less than twenty days subsequent to the date of the notice.

SEC. 3693. Quorum of board of trustees. Six members of the board of trustees shall constitute a quorum, but a smaller number may adjourn from day to day until a quorum is present.

SEC. 3694. The certificate of the president of the board or in his absence of the president pro tempore, countersigned by the secretary, shall entitle the several trustees to the payment of their actual expenses incurred in the discharge of their duties as such trustees.

SEC. 3695. No grant or gift, by will or otherwise, shall fail on account of any misnomer or informality, when the intent of the grantor or donor can be arrived at; nor shall any default, malfeasance, or misfeasance, or nonuser on the part of the trustees or other officers or agents of such corporation, work a forfeiture of any of its rights, privileges, powers, or franchises.

SEC. 3696. It shall be the duty of the board of trustees to make or cause to be made to the general assembly, at each session thereof, a full report of their transactions, and of the condition of the college, embracing an itemized account of all receipts and disbursements on account of the college by those charged with the administration of its finances.

SEC. 3697. Interest paid by treasurer; when bond required of officers or agents. The State treasurer must pay the interest on the fund of $253,500 arising from the sale of land scrip quarterly, as the same may accrue, to the treasurer or other authorized agent or officer of the college; and on the application of such treasurer, agent, or officer, the auditor shall draw his warrant on the State treasurer for such interest; but in no case shall any person be authorized to receive, hold, or disburse any fund of the college without having first given bond conditioned for the faithful performance of his duties.

SEC. 398. Experiment station of agricultural and mechanical college. The trustees of the agricultural and mechanical college may establish and maintain an agricultural experiment station, at which careful experiments in scientific agriculture shall be made; the results whereof shall be furnished the commissioner [of agriculture] monthly, and he shall make publication thereof as often as he may deem necessary; and if such station is established and maintained, the trustees of the college shall cause, without charge therefor, an analysis to be made of all fertilizers submitted by the commissioner for analysis; and one-sixth of the net proceeds arising from the sale of fertilizer tags shall be paid quarterly to the treasurer of the agricultural and mechanical college on the approval of the governor and of the commissioner, to be disbursed under the direction of the board of trustees for the development of the agricultural and mechanical department of the college.

SEC. 399. A branch agricultural experiment station, for the purpose of conducting and making experiments in scientific agriculture, is established and located at or near Uniontown, in Perry County, known as the Canebrake Agricultural Experiment Station.

SEC. 400. The station is under the general supervision and control of a board composed of the commissioner of agriculture, the director of the experiment station at the agricultural and mechanical college, and five progressive farmers to be appointed by the governor, who are actually engaged in cultivating canebrake land, three of whom must reside within 10 miles of the station, and who must not receive any compensation other than expenses actually incurred in visiting the station, and, while there, supervising its affairs.

SEC. 401. The board has authority to purchase suitable lands, not exceeding in quantity 40 acres, for the use of the station, taking the title to the State, and to construct thereon the necessary buildings and other improvements, not expending more than $2,000 in making such purchase and in the construction of such buildings and improvements. The board has authority also to appoint and to discharge at pleasure such officers, agents, or servants as are deemed necessary to the operation of the station, fixing their compensation; and may appoint a director to conduct and control the operations of the station, under the superintendence and direction and subject to the rules and regulations of the board, and may pay such director a reasonable salary, not to exceed $250 per annum.

SEC. 402. The board must cause such experiments to be made at the station as will advance the interests of scientific agriculture, particularly on canebrake lands, and to cause such chemical analyses to be made as are deemed necessary,

all such analyses, if requested, to be made under the supervision of the commissioner of agriculture by the chemist of the agricultural department without charge.

SEC. 403. The expenses of the canebrake agricultural experiment station, not exceeding $2,500 annually, must be paid out of the funds of the agricultural department to the treasurer of the board of control in equal quarterly installments on the 1st days of January, April, July, and October.

SEC. 404. A branch agricultural experiment station and school is established at Athens, Limestone County, in the Eighth Congressional district, known as the North Alabama Agricultural Experiment Station and School; another at Abbeville, Henry County, in the Third Congressional district, known as the Southeast Alabama Agricultural Experiment Station and School; another at Albertville, Marshall County, in the Seventh Congressional district, known as the Northeast Alabama Agricultural Experiment Station and School; another at Evergreen, Conecuh County, in the Second Congressional district, known as the Southwest Alabama Agricultural Experiment Station and School; another at Hamilton, Marion County, in the Sixth Congressional district, known as the Sixth District Agricultural Experiment Station and School; another at Blountsville, Blount County, in the Ninth Congressional district, known as the Ninth District Agricultural Experiment Station and School; and three additional agricultural experiment stations and schools, to be located by the governor, commissioner of agriculture, and superintendent of education, may be established in the First, Fourth, and Fifth Congressional districts, respectively, to be known as the —— District Agricultural Experiment Station and School, respectively, whenever the inhabitants of the district shall convey to the State for the use of such stations and schools, respectively, not less than 80 acres of land, with suitable school buildings thereon of not less than $5,000 in value as approved by the commissioner of agriculture. [On the 9th of December, 1896, the foregoing was amended as follows:] No school or experiment station shall be established in either [any?] of said Congressional districts until such district or the citizens thereof shall donate and convey to the State for the use of such station and school real estate and buildings not less than $5,000 in value, to be approved by the commissioner of agriculture: *Provided, etc.*, [The matter being local in application and of detail.]

SEC. 405. Each of such stations is under the supervision of a board of control, appointed by the governor, to be composed of five members, a majority of whom shall be men whose principal business is farming, who shall be residents of the respective Congressional district wherein the school for which they are appointed is located, and the superintendent of education and the commissioner of agriculture shall be ex officio members of such board of control. Such board of control may appoint an executive committee composed of not less than three members of such board, who shall exercise such powers consistent with the acts creating the said school as are conferred upon them by the board of control. Of the five members of each board of control appointed by the governor, one shall be appointed for two years, two for four years, and two for six years from the date of their respective appointments, and as their terms expire the governor shall fill the vacancies, and the members appointed to fill such vacancies shall hold for six years from their appointments. And the governor, whenever he deems such action necessary or expedient, shall have authority to remove the board of control of any school or any member of such board. The members of said board must not receive any compensation other than traveling expenses actually incurred in attending meetings of the board of control.

SEC. 406. For the support of the nine branch agricultural schools and experiment stations, located in the First, Second, Third, Fourth, Fifth, Sixth, Seventh, Eighth, and Ninth Congressional districts, respectively, in the State of Alabama, there shall be appropriated annually out of the agricultural fund the sum of $2,500 to each of said schools, one-fourth of such sum to be paid quarterly, to wit, January 1, April 1, July 1, and October 1 of each year, to the treasurer of the board of control of such schools, provided there is so much of said fund not otherwise appropriated; and if such fund is not sufficient to pay to each of said schools the said sum of $2,500, then the same is to be equally divided among said schools.

SEC. 407. Not less than $500 of the sum so appropriated to each of said schools shall be used in maintaining, cultivating, and improving the farms, respectively, and making agricultural experiments thereon, under and by direction of the respective boards of control.

SEC. 408. The treasurer of the board of control shall give bond payable to the board of control, in the sum of at least $1,000, conditioned to faithfully keep and disburse the funds of the schools, and such board of control may require an additional bond at any time it may deem necessary.

SEC. 409. The president or principal of each of said schools shall be the director of the respective school and station in which he is employed, and he shall personally superintend the making of such experiments as will advance the interests of scientific agriculture and cause such chemical analyses to be made as are deemed necessary, and perform such other duties in reference to such experiment stations as shall be required of him by the board of control.

SEC. 410. The president and board of control of said agricultural schools and experiment stations shall, from time to time, prepare bulletins of information for farmers and reports of agricultural experiments conducted by them and answers to questions that may be asked them in practical farming and veterinary diseases, including condensed reports of the experiment station at Uniontown, and publish the same in all the weekly newspapers published in their respective Congressional districts whose publishers will insert the same free of charge.

SEC. 411. It shall be the duty of the president or principal of each of said schools to make to the superintendent of education, on or before September 30 of each year, a full report of the financial condition, workings, and progress of said school, embracing an itemized account of all receipts and disbursements of money appropriated to such schools by this article, and a like report to the commissioner of agriculture of the condition, expenses, and workings of the experiment station connected with such school.

SEC. 412. It shall be the duty of the president and principal of each of such schools to report in writing quarterly to the board of control an itemized account of all incidental or matriculation fees, and all other moneys received by him as such president or principal, together with the disposition of the same. He shall give receipts for all moneys received and take receipts for all moneys disbursed by him.

SEC. 413. Scientific and practical agriculture shall be taught at all the agricultural schools, and all male pupils over 10 years of age who receive free tuition therein shall be required to take the course in scientific agriculture and horticulture, and all other pupils over the age of 10 years receiving free tuition shall be required to take the course in floriculture and horticulture.

SEC. 414. None of the said schools shall receive the appropriations provided for in this article or any part thereof unless such school shall be actually conducting an agricultural experiment station and agricultural school, wherein such experiments are made as will tend to advance the interests of scientific farming.

SEC. 415. The board of control and president of the faculty of said schools shall adopt a course of study with a view to educating and training pupils for teachers in the public schools of this State, which course of study shall embrace the different grades adopted by the State; to grant certificates of proficiency or diplomas to such pupils as shall complete the course of study so adopted: *Provided*, That such certificates of proficiency or diplomas shall not entitle the holder to teach in the public schools of the State without examination.

SEC. 416. The commissioner [of agriculture] is authorized and directed to adopt annually such measures as may be necessary to successfully conduct in different sections of the State farmers' institutes, consisting of lectures on subjects related to agriculture by persons of scientific attainments, and by practical and successful farmers, with discussions relating thereto, and of such exhibitions as may be found improving, instructive, and of practical value to the farmers of the vicinity where such institutes are held, a report of which, with a detailed statement of the money expended in that connection, must be embodied in his annual report.

SEC. 417. The commissioner is authorized to pay the necessary expenses incurred in conducting such farmers' institutes, including the expense of employing lecturers when necessary and for distributing the reports thereof, and for this purpose there is annually appropriated out of the funds of the department of agriculture $3,000, or so much thereof as may be necessary, to be paid from the monthly estimate and allowance for expenses of the department.

SEC. 396. All moneys received by the department from fees for licenses, from sales of tags, from fees for the registration of lands for sale, or from any other source must be paid into the State treasury monthly.

Act approved February 15, 1897:

SECTION 1. A branch agricultural experiment station and agricultural school for the colored race is hereby established and located at Tuskegee, Macon County, to be run in connection with the Tuskegee Normal and Industrial Institute, and to be known as the Tuskegee Agricultural Experiment Station and Agricultural School.

SEC. 2. The board of control of said station and school shall be composed of the State commissioner of agriculture, the president of the Agricultural and Mechanical College, and the director of the State experiment station at Auburn,

Ala., and the members of the board of trustees of the Tuskegee Normal and Industrial Institute who reside in the town of Tuskegee, and their successors, who shall also reside in the town of Tuskegee, Ala. The members of said board shall not receive any compensation other than expenses actually incurred in visiting the station and school and while there supervising its affairs.

SEC. 3. The said board of control shall have power to elect the director, teachers, and such other officers, agents, and servants as are deemed necessary to the operation of the said station and school, fixing their compensation, and shall manage said school and station as in their judgment they think best.

SEC. 4. For the equipment and improvement of said station and school there is hereby appropriated out of the agricultural fund in the treasury, not otherwise appropriated, the sum of $1,500, one-fourth of said sum to be paid quarterly to the treasurer of said board of control, who shall give bond in double the amount of the appropriation, for the safe-keeping and faithful application of the sum appropriated, the bond to be approved by the judge of probate of Macon County and filed in his office, a certified copy of which shall be forwarded to the commissioner of agriculture, to be placed on file in his office.

SEC. 5. The trustees of the said Tuskegee Normal and Industrial Institute shall furnish for the use of said station and school all the necessary lands and buildings, and for such use they shall make no charge against the State of Alabama.

SEC. 6. The board of control must cause such experiments to be made at said station as will advance the interest of scientific agriculture, and must cause such chemical analyses to be made as are deemed necessary. All such analyses, if requested, are to be under the supervision of the commissioner of agriculture by the chemist of the agricultural department without charge.

SEC. 7. The board of control may adopt such rules and regulations as they may deem necessary for the purpose of carrying out the provisions of this act, so that the colored race may have the opportunity of acquiring an intelligent and practical knowledge of agriculture in all its various branches.

SEC. 8. It is the purpose of this act to appropriate to the support of the experiment station established by this act; the sums appropriated in this act are appropriated only for the purpose of maintaining and operating experimental stations with the view of educating and training colored students, as herein named, in scientific agriculture.

SEC. 9. The Alabama State Normal School for Colored Students, at Montgomery, is hereby constituted an experiment station and shall be under its present board of trustees, and $1,000 per annum is hereby appropriated out of the treasury to the credit of the agricultural department, not otherwise appropriated, for the purpose of operating an experiment station in connection with said Alabama State Normal School for Colored Students, at Montgomery.

Act approved February 13, 1891.

SECTION 1. Inasmuch as by the act of Congress for the more complete endowment and support of the colleges for the benefit of agriculture and the mechanic arts, approved August 30, 1890, the grants of money authorized by said act are made subject to the legislative assent of the several States and Territories to the purpose of said grants, it is hereby declared that the assent of the general assembly of the State of Alabama is given to the purpose of the grants made in said act of Congress; and the trustees of the institution receiving said grants are hereby directed to comply with the terms and conditions expressed in the act aforesaid, using all moneys received under said act of Congress faithfully for the purposes named therein.

SEC. 2. The division of the fund to be received under said act approved August 30, 1890, between one college for white students and one institution for colored students shall be based from year to year upon the ratio of the number of each race of legal school age to the population of school age in the State of Alabama, as shown by the State school census next preceding the annual payment of said fund by the United States Treasury, said ratio being, for the year 1888-9, white (56.6) fifty-six and six-tenths per cent, colored (43.4) forty-three and four-tenths per cent; it being provided that the division may be at any time modified by the written consent of the Secretary of the Interior of the United States and the governor of Alabama.

SEC. 3. That portion of the grant of money received by the State of Alabama under said act of Congress approved August 30, 1890, herein set apart for the education of white students, is appropriated to the Agricultural and Mechanical College of Alabama, at Auburn, and that portion of the said grant herein set apart

for the education of colored students is appropriated to the Huntsville State Colored Normal and Industrial School.

SEC. 4. That the money appropriated in this act to the Agricultural and Mechanical College, at Auburn, and to the Huntsville State Colored Normal and Industrial School shall be drawn from the State treasury, as ordered by the trustees of the said institutions, on the warrant of the auditor, approved by the governor. (Approved February 13th, 1891.)

ARIZONA.

[The following matter is taken from the Revised Statutes of Arizona Territory, 1901.]

SEC. 3625. There shall be established in this Territory, at or near the city of Tucson, in the county of Pima, upon the grounds secured for that purpose, in the manner hereinafter provided, an institution of learning under the name of the "University of Arizona."

SEC. 3626. The object of the university shall be to provide the inhabitants of this Territory with the means of acquiring a thorough knowledge of the various branches of literature, science, and the arts.

SEC. 3627. The government of the university shall vest in a board of regents, to consist of a president and three members, who shall be appointed as hereinafter provided, and the Territorial superintendent of public instruction and the governor of the Territory shall, during their respective terms of office, be members of said board.

SEC. 3628. The members of the board of regents shall be appointed by the governor of the Territory, by and with the advice and consent of the council, two-thirds of the members of council concurring therein, and shall hold their offices, respectively, except those appointed to the first board, for the term of four years from the first Monday of August succeeding their appointment and until the appointment of a successor.

SEC. 3630. The regents of the university and their successors in office shall constitute a body corporate with the name and style of the "Board of regents of the University of Arizona," and by that name they and their successors shall be known in law; have perpetual succession; may sue and be sued; may purchase, receive, and hold property, real and personal, for the benefit of the Territory of Arizona and the use of said university; of contracting and being contracted with; of making and using a common seal, and altering the same at pleasure.

SEC. 3631. Before entering upon the discharge of the duties of regent each of the members of said board of regents shall execute a bond, with two or more sufficient sureties, to be approved by the governor, in the penal sum of $5,000, and take and subscribe an oath of office similar to the oath required of other Territorial officers, which bond and oath shall be filed and kept in the office of the Territorial treasurer.

SEC. 3632. The regents shall appoint a secretary, a treasurer, and a librarian, each of whom shall hold office during the pleasure of the board. It shall be the duty of the secretary to record all the proceedings of the board, and carefully to preserve all its books and papers, and to perform such other duties pertaining to his office as the board of regents may from time to time require. The treasurer shall keep a true and faithful account of all moneys received and paid out by him, and shall give such bonds for the faithful performance of the duties of his office as the board of regents may require. The board of regents shall appoint one of its members treasurer and one of its members secretary, but no one member shall be appointed to both the said offices of treasurer and secretary. The secretary shall receive in full for all compensation as such secretary the sum of $15 per month. No compensation shall be paid to the treasurer.

SEC. 3633. The board of regents shall have power, and it shall be their duty, to enact laws for the government of the university; to elect a chancellor, who shall be ex officio president of the board of regents, and when the chancellor is absent from any meeting of the board, the board may appoint a president pro tem.; they may also appoint and employ the requisite number of professors and tutors, and such other officers and employees as they may deem expedient, and they shall also determine the amount of their respective salaries.

SEC. 3634. The university shall consist of five departments:

1. The department of science, literature, and the arts.
2. The department of theory and practice, and elementary instruction.
3. The department of agriculture.
4. The normal department.
5. The department of mineralogy and school of mines

The immediate government of the several departments shall be intrusted to their respective faculties, but the board of regents shall have the power to regulate the course of instruction, and prescribe, under the advice of the holders of the professorships, the books to be used and authorities to be followed in the several departments, and also to confer such degrees and grant such diplomas as are usually conferred and granted by other universities.

SEC. 3635. The board of regents shall have power to remove any officer or employee connected with the institution, other than the chancellor or member of the board of regents, when, in their judgment, the interests of the university require it.

SEC. 3636. The fee of admission to the university shall never exceed the sum of $20, and the charge for tuition in any of the departments shall never exceed in one year, to the residents of the Territory, $50, and as soon as the increase of the university fund will permit, the tuition in the first and second departments shall be without charge to all students in the same who are residents of the Territory.

SEC. 3637. The board of regents are authorized to expend such portion of the income of the university fund and the funds hereinafter provided for said university as they may deem expedient for the erection of suitable buildings upon the grounds hereinafter provided for, and the purchase of apparatus, a library, and cabinet of natural history and mineralogy.

SEC. 3638. The board of regents shall make a report annually to the governor of the Territory on or before the 2d day of January of each year, exhibiting the state and progress of the university in its several departments, the course of study followed, the number of professors employed and of students in attendance, the amount of receipts and expenditures, and such other information as they may deem proper. Meetings of the board may be called in such manner as the board of regents may prescribe, and any two of them, with the chancellor, at a meeting regularly called, shall be a quorum for the transaction of business, and a less number may adjourn from time to time. No sectarian tenets, opinions, doctrines, or principles shall be taught in any of the departments of said university, nor shall adhesion to any sectarian tenet or opinion be required to entitle any person to be admitted as a student in said university, and no such tenets or opinions shall be required as a qualification for any person as a regent, tutor, or professor of such university.

SEC. 3639. The compensation of said board of regents shall be $5 per day each for each day's actual attendance upon said board, and 10 cents per mile for each mile actually traveled to and from the place of meeting: *Provided*, That only one mileage shall be allowed each member for each session: *And provided*, That no member of said board shall receive compensation in any one year exceeding the sum of $150.

SEC. 3640. For the support of said university, in addition to the provisions hereinbefore made, there shall be, and is hereby, appropriated the proceeds from the sale of all lands that have been or may hereafter be granted by the United States to the Territory for university purposes, or of any moneys granted by the same for like purposes, and the proceeds of all lands, money, or other property given by individuals or appropriated by the Territory for the like purpose, all of which shall be and remain a perpetual fund, the interest or income of which, together with the rents of all such lands as may remain unsold, shall be inviolably appropriated and annually applied to the specific object of the original gift, grant, or appropriation; and no such money, property, or proceeds shall under any pretense be applied, used, or loaned for any uses or purposes whatsoever.

SEC. 3642. There shall be a Territorial museum for the collection and preservation of the archæological resources, specimens of the mineral wealth, and the flora and fauna of the Territory.

SEC. 3643. The regents of the university shall direct and manage the affairs of the museum.

SEC. 3644. There shall be set apart in the rooms of the Territorial university a sufficient amount of space to accommodate such articles as may be received for the Territorial museum, which shall be under the direct supervision of the board of regents of the university.

SEC. 3649. Whenever hereafter any student of the University of Arizona shall be expelled by the faculty or board of regents of said university, the said student so expelled shall be required to give up to the said board of regents his cadet's uniform.

SEC. 3650. The board of regents is authorized, and is hereby required, upon the surrender of the cadet's uniform by any student or cadet expelled, to pay, out of any moneys on hand in the "University of Arizona fund" not otherwise appro-

priated, the cost price of said uniform, the money to be paid to the parent or guardian of said student or cadet.

SEC. 3651. Any student or cadet of said University of Arizona who has been expelled from the said university and after said expulsion is found wearing a cadet's uniform in any public place is guilty of a misdemeanor, and on conviction therefor subject to a fine of not less than $10 and, in default of the payment of the fine, to five days' imprisonment in the county jail.

SEC. 3652. There shall be levied annually, in addition to all other taxes directed to be levied and collected, a tax of three-fifths instead of two-fifths of a mill, as heretofore provided by law, on each $1 of assessed value of all real and personal property in the Territory of Arizona, and, when collected, to be placed by the Territorial treasurer in the fund known as the university fund. The Territorial auditor shall certify the rate of tax as above stated to the several boards of supervisors throughout the Territory, and said board of supervisors are hereby directed and required to enter such rate on the assessment rolls of their respective counties in the same manner and with the same effect as is provided by law in relation to other Territorial or county taxes. The tax levied under the authority of the provisions of this act is hereby made a lien against the property assessed, which lien shall attach on the first Monday in February in each year, and shall not be satisfied or removed until such tax is paid.

SEC. 3653. The board of regents of the University of Arizona are authorized to expend such portion of the university fund and such other funds as may be provided for the said university as they may deem expedient for the erection and furnishing of suitable buildings and the support and maintenance of said university.

SEC. 3654. The Territorial auditor is hereby authorized and directed to draw his warrant on the Territorial treasurer for all claims approved and allowed by the said board of regents under the provisions of this act, and the Territorial treasurer is hereby authorized and directed to pay said warrants out of any moneys in the university fund.

SEC. 3655. For the purpose of carrying out the provisions of this act a loan of $25,000 is hereby authorized to be negotiated and made on the faith and credit of the Territory of Arizona and to bear interest at the rate of 5 per cent per annum.

SEC. 3656. The treasurer of the Territory of Arizona is hereby authorized and directed to issue and deliver to said "board of regents of the University of Arizona," and said board of regents are hereby authorized to sell not exceeding $25,000 of the bonds of this Territory, bearing interest at 5 per cent per annum, which interest shall be payable annually in gold coin of the United States on the first Monday in January in each year at the office of the Territorial treasurer. The principal of said bonds shall be, and is, expressly made payable in gold coin of the United States, within twenty years after the date of their issue, and shall be of such denomination as the said board of regents shall direct, and shall bear the date of their issue and shall be signed by said treasurer of the Territory of Arizona and countersigned by the president of said board of regents in his official capacity, and shall have the seal of the said board of regents affixed thereto, and the faith of the Territory of Arizona is hereby pledged for the payment of said bonds and the interest accruing thereon, as herein provided.

SEC. 3657. Coupons for the interest accruing on said bonds shall be attached thereto severally, so that they may be removed without injury or mutilation to the bond. Said coupons shall be consecutively numbered, and shall bear the number of the bond to which they are attached, and shall be signed by the Territorial treasurer.

SEC. 3658. Said bonds shall be prepared and signed by the treasurer of the Territory of Arizona, with said coupons attached thereto, and delivered to said board of regents of the University of Arizona at any time hereafter and as soon as practicable after said treasurer shall have been requested by said board of regents so to do, taking receipt of said board therefor.

SEC. 3659. The expense incurred by the Territorial treasurer in having said bonds prepared shall be paid out of the general fund of the Territory, from any money therein not otherwise appropriated, to be expended only upon warrants drawn by the Territorial auditor upon the certificate of the Territorial treasurer that the expense has been incurred and that the claim is just.

SEC. 3660. It shall be the duty of the Territorial treasurer to keep and transmit to his successor a permanent record of all bonds issued under the provisions of this act, and it shall be the duty of said board of regents of the University of Arizona also to keep a permanent record in the office of said board and of all bonds sold, the name of the purchaser, and price received by said board under the provisions of this act, and transmit to the governor a certified copy of said record as soon as said bonds shall have been sold.

SEC. 3661. The board of regents of the University of Arizona is hereby authorized to demand of and receive from the treasurer the bonds authorized by this act to be issued and sold, or such part of the same as in the judgment of this board shall be necessary to carry out the purposes of this act, and after the same shall have been countersigned by the chancellor of the University of Arizona the said board of regents is hereby authorized to sell said bonds for the purpose of constructing and furnishing upon the grounds of the university the necessary buildings to provide proper accommodations for a museum, a library, and administrative offices of the university. Any moneys received by said board from the sale of bonds and not expended under the provisions of this act for constructing and furnishing said buildings as herein required shall be paid into the Territorial treasury, and by the treasurer placed in the university funds by this act created.

SEC. 3662. Before the sale of any of said bonds the said board of regents shall cause notice of such sale to be published in four daily newspapers published in English, one at the city of New York, State of New York; one at the city of San Francisco, State of California; one at the Territorial capital, and one at the city of Tucson, in said Territory. Such notice shall specify the amount of bonds to be sold, the rate of interest they shall bear, the place, day, and hour of sale, and that sealed proposals will be received by said board of regents within one month from the expiration of such publication, and that none of said bonds will be sold for less sum than their par value; and at the place, on the day and hour named in said notice, the board of regents shall open all sealed proposals received by it, and shall award the purchase of said bonds to the highest bidder or bidders therefor: *Provided*, That such bid shall not be for a less sum than the par value of said bonds: *And provided further*, That said board of regents may reject any and all bids if they deem it to the advantage of the Territory: *And provided further*, That if none of said bids are accepted said board of regents shall again advertise said bonds for sale and proceed as hereinbefore provided under fresh notice of sale.

SEC. 3663. For the payment of the interest on the bonds issued under this act, after such bonds shall have been issued, there is hereby levied annually, in addition to all taxes otherwise directed to be levied and collected, a tax of one-half cent on each $100 of the assessed value of all real and personal property in the Territory of Arizona, to be placed by the Territorial treasurer in a fund to be known as the "University interest fund;" and commencing ten years thereafter there shall be in like manner annually levied and collected such an additional amount as shall pay $2,500 of the principal of said bonds and any amount of interest accrued thereon and remaining unpaid by said interest fund, to the end, intent, and purpose that all of the principal and interest of said bonds shall be fully paid during the period of twenty years from the date of their issuance. The Territorial auditor shall certify the rate of tax computed by him to the several boards of supervisors throughout the Territory necessary to raise the required amount for the redemption of the bonds as above stated, and the said boards of supervisors are hereby directed and required to enter such rate on the assessment rolls of their respective counties, in the same manner and with the same effect as is provided by law in relation to other Territorial and county taxes. Every tax levied under the provisions or authority of this act is hereby made a lien against the property assessed, which lien shall attach on the first Monday in February in each year, and shall not be satisfied or removed until such tax has been paid. All moneys derived from taxes authorized by this section shall be paid into the Territorial treasury and shall be applied:

1. To the payment of interest on the bonds issued by the provisions of this act.

2. To the payment of the principal of such bonds: *Provided*, That all moneys remaining in the Territorial treasury, after the payment of the interest and principal in each year thereafter, as herein provided, after the issuance of any bonds under this act, shall be transferred by the Territorial treasurer to a fund which shall be known as the "University fund," and the Territorial treasurer is hereby authorized and directed to open a separate account with, and keep said moneys so transferred to said fund, and all other moneys which are paid into said fund, separate, and apply the same only in payments of the expenses of the maintenance of said university.

SEC. 3664. Whenever, after the expiration of ten years from the issuance of any bonds under this act, there remains after the payment of the interest, as provided in this section, a surplus of $2,500 or more, it shall be the duty of the Territorial treasurer to advertise for the space of one month in like manner as said board of regents of university advertise for bids, as set forth in section 3662 herein, which advertisement shall state the amount in the sinking fund and the number of bonds, numbering them in order of their issuance, commencing at the lowest

number then outstanding, which such fund is set apart to pay and discharge, and if such bonds so numbered in such advertisements shall not be presented for payment and cancellation at the expiration of such publications, then such fund shall remain in the treasury to discharge such bonds whenever presented, but they shall draw no interest after the expiration of such publication. Before any such bonds shall be paid they shall be presented to the Territorial auditor, who shall indorse on each bond the amount due thereon, and shall write across the face of each bond the date of its surrender and the name of the person surrendering the same.

SEC. 3665. The Territorial treasurer shall keep a full and particular account and record of all his proceedings under this act, and of the bonds redeemed and surrendered, and he shall submit to the governor an abstract of all his proceedings under this act with his annual report, to be by the governor laid before the legislature biennially, and all books and papers pertaining to the matter provided in this act shall at all times be open to the inspection of any party interested, or the governor, or a committee of either branch of the legislature, or a joint committee of both.

SEC. 3666. It shall be the duty of the Territorial treasurer to pay the interest on said bonds when the same falls due, out of the interest fund, if sufficient, and if said fund be not sufficient, then to pay the deficiency out of the general fund: *Provided*, That the Territorial auditor shall first draw his warrant on the Territorial treasurer, payable to the order of said treasurer, for the amount of interest money about to become due and payable out of the general fund, which said interest warrant shall be drawn at least one month previous to the maturing of the interest.

SEC. 3667. This act shall take effect immediately, subject, however, to its approval and ratification by the Congress of the United States.

ARKANSAS.

Constitution (1874), Article XIV: SEC. 2. No money or property belonging to the public-school fund, or to this State for the benefit of schools or universities, shall ever be used for any other than the respective purposes to which it belongs.

[The following matter is taken from A Digest of the Statutes of Arkansas, Embracing all Laws of a General Nature in force at the Close of the Session of the General Assembly of 1893, by Sanders and Hill. Columbia, Mo., 1894.]

SEC. 4054. By an act of the general assembly of January 31, 1867, the State of Arkansas signified and declared her assent to the grant of land and land scrip authorized and contained in the acts of Congress approved July 2, 1862, and July 23, 1866, which terms and conditions were as follows:

First. The State of Arkansas will replace any portion of the fund provided by section 4 of said act, or any portion of the interest thereon, which shall by any action or contingency be diminished or lost, so that the capital fund shall remain forever undiminished, and will apply the annual interest thereon regularly, without diminution, to the purposes mentioned in the fourth section of the said act of Congress, subject only to the exception contained in section 5 of the act last referred to.

Second. The State of Arkansas, further assenting, agrees that no portion of said fund, nor the interest thereon, shall be applied, directly or indirectly, under any pretense whatever, to the purchase, erection, preservation, or repair of any building or buildings.

Third. The State of Arkansas further agrees to provide at least not less than one college, as prescribed in the fourth section of said act of Congress, and in accordance with the act amendatory of said act, and also to pay the United States the amount received of any lands previously sold to which the title of purchasers was valid.

Fourth. The State of Arkansas further agrees that an annual report shall be made regarding the progress of each college, in accordance with paragraph 4 of section 5 of said act of Congress of July 2, 1862.

SEC. 4055. By an act of the general assembly of March 7, 1889, the State of Arkansas accepted the appropriation and assented to the terms contained in an act of Congress approved March 2, 1887, entitled "An act to establish agricultural experiment stations in connection with the colleges established in the several States under the provisions of an act approved July 2, 1862, and of the acts supplementary thereto." The sum of $15,000 per annum was appropriated by said act of Congress for the maintenance and necessary expenses of such agricultural experiment stations, and the said sum was appropriated by the aforesaid act of the general assembly to the Industrial University. By the aforesaid act of the general assembly the

said appropriation was accepted and assented to in trust for the uses and purposes expressed in the aforesaid act of Congress set forth in the succeeding section.

SEC. 4056. It shall be the object and duty of said experiment stations to conduct original researches or verify experiments on the physiology of plants and animals, the diseases to which they are severally subject, with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation; the analyses of soils and waters; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese, and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective States or Territories.

SEC. 4057. By an act of the general assembly of April 9, 1891, the State of Arkansas accepted the grant and assented to the provisions of an act of Congress of August 30, 1890, for the more complete endowment and support of the colleges for the benefit of agriculture and mechanic arts, established under the act of Congress of July 2, 1862. One of the conditions of said grant was that in States where the white and negro races were separately educated and there was a college for the education of the negro race, that the State should equitably divide said appropriation. Pursuant thereto the State of Arkansas divided the same as follows: Eight-elevenths for the Industrial University, at Fayetteville, and three-elevenths for the Branch Normal College thereof, at Pine Bluff.

SEC. 4058. By the act of Congress mentioned in the preceding section there was provided an appropriation of $15,000 for each State accepting the same for the year 1890, and the same sum and an annual increase thereof of $1,000 additional to the preceding year for ten years, and the annual amount thereafter to be $25,000, said sum to be applied only to instruction in agriculture, the mechanic arts, the English language, and the various branches of mathematical, physical, natural, and economic science, with special reference to their applications in the industries of life and to the facilities for such instruction.

SEC. 4059. The State treasurer shall receive, under his official responsibility, all sums due and to become due from the United States from the appropriation mentioned in the preceding section and pay the same to the trustees of the aforesaid university and branch thereof in the proportion aforesaid. (Act April 9, 1891, sec. 9.)

SEC. 4060. The State treasurer shall be the financial agent and trustee of the State, to apply for and receive of the United States all the land scrip to which the State may be entitled by reason of the acceptance of the terms of the act of Congress of July 2, 1862, and acts amendatory thereof. (Act March 27, 1871, sec. 1.)

SEC. 4061. All property or bonds donated or bid for the location of said university, and accepted by said board of trustees, shall constitute a part of the funds of said university.

SEC. 4062. It is hereby made the absolute duty of the county court of the county or corporation council issuing such bonds to annually levy a tax and collect in currency or overdue coupons of such bonds a sum fully sufficient to pay all accruing interest on such bonds and incidental expenses connected therewith; and upon failure to do so, it shall be the duty of any court of competent jurisdiction, upon the application of any one or more holders of such bonds, to compel such county court or council forthwith to levy and collect such sums as will fully pay all such interest as herein provided for. (Act March 27, 1871, secs. 9 and 10.)

SEC. 4063. It shall be the duty of the county court of the county of Washington, at each annual meeting held for the purpose of levying taxes, to provide for the levy of a tax of 1 mill on each one dollar's worth of taxable property, to be paid into the county treasury as a sinking fund to be set apart and kept for the sole purpose of liquidating the thirty-year 8 per cent bonds, known as "college bonds," held in trust by the State of Arkansas for the benefit of the Arkansas Industrial University.

SEC. 4064. It shall be the duty of the treasurer of said county, when the said taxes, as provided in section 4063, shall have been collected and paid to him annually under the direction of the county court of said county, to invest the same to the best possible advantage in interest-bearing bonds or securities of the State of Arkansas or of any other State bearing the highest rate of interest and deemed good and safe. And the said county treasurer shall also, in like manner, as the

interest shall accrue and be collected on the investments aforesaid, from time to time invest said interest in interest-bearing bonds or good securities.

SEC. 4065. It shall be the duty of the city council of the city of Fayetteville, in said county of Washington, at each annual meeting held for the purpose of levying taxes, to provide for the levy of a tax of 1 mill on each one dollar's worth of taxable property, to be paid into the city treasury as a sinking fund, set apart and kept for the sole purpose of liquidating the thirty-year 8 per cent bonds, known as "college bonds," held in trust by the State of Arkansas for the benefit of the Arkansas Industrial University.

SEC. 4066. It shall be the duty of the treasurer of said city, when the said taxes provided for in section 4065 shall have been collected and paid to him annually under the direction of the city council of said city, to invest the same to the best possible advantage in interest-bearing bonds or securities of the State of Arkansas or of any other State bearing the highest rate of interest and deemed good and safe; and the said city treasurer shall also, in like manner, as the interest shall accrue and be collected on the investments aforesaid, invest said interest in interest-bearing bonds or securities as aforesaid. (Act March 28, 1885.)

SEC. 4067. The governor of the State of Arkansas, by and with the consent of the senate, shall appoint, and there is hereby created, a board of six trustees for the Arkansas Industrial University, to be appointed one from each Congressional district, to be composed of representatives of the agricultural, mechanical, and literary pursuits of life as nearly as possible, who shall hold their office for the term of six years from the date of their appointment and until their successors are appointed and qualified: *Provided*, When the first appointment is made under the provisions of this act, two members of said board shall be appointed for the term of two years, two for four years, and two for six years; and every two years thereafter two members of said board shall be appointed for the term of six years. The governor shall be, ex officio, president of said board, and in all cases of tie votes shall cast the deciding vote; and in his absence the board shall elect a presiding officer. A less number than a quorum may adjourn from time to time. (Act March 30, 1887, sec. 1, as amended by act March 31, 1891.)

SEC. 4068. Said board is made a body politic and corporate, and shall have all the powers of a corporate body, subject to the constitution and laws of the State of Arkansas, and possess all the powers and authority now possessed by the board of trustees of said university under existing laws, and shall make and subscribe an affidavit before entering upon their respective duties, to faithfully, diligently, and impartially discharge the duties of their office. (Act March 30, 1887, sec. 2.)

SEC. 4069. The board of trustees shall have power to prescribe all rules and regulations for the government and discipline of said university, subject to the provisions of this chapter and such other acts of the general assembly as may hereafter be prescribed. (Ib., sec. 4.)

SEC. 4070. The board of trustees shall cause to be made an annual report of the operations and condition of the agricultural and mechanical departments of said university, which shall include:

First. A statement of the number of acres in cultivation on the college farm, the kind of crops raised, and the number of acres of each kind.

Second. The manner of the preparation of the soil for the various crops, methods of seeding and planting, kind and variety of seeds, manner of cultivating and of harvesting.

Third. The several kinds and descriptions of all implements used in the various stages of the different crops, with reports on their utility and adaptation for the purposes used.

Fourth. The time of preparation of the soil, sowing, planting, cultivating, and harvesting, and a general statement of the weather and its influence upon the several crops.

Fifth. The kinds of fertilizers used and crops to which they were applied, the time and manner of application, and the several results.

Sixth. A detailed and systematic account of the number of days' work, of ten working hours each, of men and teams in the production of each separately treated crop, said statement of labor to be in three divisions: First, up to the time the seed are deposited in the ground; secondly, during cultivation; thirdly, while harvesting and preparing the crop for market.

Seventh. A full and accurate yield per acre, by weight or measure, of all crops raised on the farm, distinguishing between the several kinds of treatment as to fertilizers used, and depth of plowing, difference of cultivation, times of harvesting, kind or variety of seed used.

Eighth. Kind and quantity of machinery and tools used in the mechanical department; the kind and quality of each shop or division of said department, and an approximate cost of production of each article manufactured. (Act March 30, 1887, sec. 10.)

SEC. 4071. The board of trustees shall meet annually, and shall have power to hold adjourned meetings when the business of the university actually requires it, or the president of the board may call a meeting of the board when he is satisfied the interests of the university require it or when five members of the board petition him to do so. (Act May 30, 1874, sec. 4.)

SEC. 4073. The president of the board shall attend the meetings of the board and shall perform all such duties as are herein required or may be directed by said board, without salary or fees or any compensation whatsoever, except such as he now receives for other services for the State; but his own and the trustees' necessary traveling expenses and board bills and other necessary incidental expenses in carrying this chapter into effect shall be paid by the State, upon the official certificate of the person incurring such expense being approved by the president of the board, which shall be a voucher in the office of the auditor of the State. Said trustees shall each receive $2.50 for each day necessarily consumed on duty as such trustees, payable as above provided for. (Act March 27, 1871, sec. 12, as modified by subsequent legislation.)

SEC. 4074. Said board of trustees shall fix, and from time to time regulate, the fees, allowances, salaries, and wages to be paid architects, inspectors, professors, teachers, agents, committees, servants, or other necessary employees; and they shall observe rigid economy in such expenditures. (Ib., sec. 16; but see 4094 seq.)

SEC. 4075. The board of trustees, for any cause by them deemed sufficient, shall have power, by majority vote taken at any meeting, to remove any member from said board: *Provided*, No member shall be so removed without as many as five of such trustees voting for such removal; and when any member of said board shall be so removed the votes of the trustees shall be recorded, and the president of the board shall make a certificate showing the result of such vote and transmit the same without delay to the governor, who shall at once declare the commission which had been issued to such removed trustee vacated, and appoint and commission some competent man to fill the vacancy so occasioned.

SEC. 4076. The said board of trustees are fully empowered and authorized, either as a board or through any committee they may select or appoint, to inquire into and fully investigate any and all charges that have been or may be preferred against any trustee of said board, or any member of any committee appointed by or under the direction of said board, or any contractor, architect, builder, employee, or agent or other person acting by agreement with or authority of, or under, said board of trustees, or any of the committees of said board, in any capacity whatever; and for the purposes of such investigations or inquiry, said board, or any committee appointed by them, shall hold meetings in the State at such time and place as may be designated by the board, or by the committee so appointed, and the chairman of the executive committee of said board, for the time being, shall have full and ample power to issue all necessary process for summoning and compelling attendance of witnesses before such board or committee, and may impose upon all witnesses who refuse to obey such process, or to testify fully and explicitly before such board or committee in reference to any and all such matters as may be the subject of inquiry, all the pains and penalties that might or could be imposed upon such witness by the circuit court in any case if he were to fail and refuse to appear and testify before the proper circuit court of his county in a cause or matter legally pending therein, after being duly summoned to appear and testify therein, and said process, issued by the chairman of said executive committee, may be directed to any sheriff, coroner, or constable in this State; and if such officer fails, neglects, or refuses to execute such process, he shall be subject to all the forfeitures, pains, and penalties which might or could be imposed upon him for failing, neglecting, or refusing to serve necessary or proper process from a circuit court in his own county, and such fine, imprisonment, and penalties as can be so assessed shall be enforced and carried out upon the order of such chairman of the executive committee, which chairman shall be required to have no commission to so act except as a member of the board, and a certificate of his election or appointment to such place by the board of trustees or the president of such board.

SEC. 4077. The material parts of all examinations and inquiries had by any committee shall be reduced to writing and laid before the board for their action; and process under this act shall run in the name of the State, and officers and witnesses shall execute and obey the same without any advanced fee or compensation, and their accounts or claims for such service or attendance, or other costs

arising in such investigation, shall be presented to said board of trustees, and they shall, through their president, order certificates issued upon their treasurer for reasonable compensation. (Act April 5, 1873.)

SEC. 4078. The board of trustees of the Arkansas Industrial University at the first meeting after April 1, 1893, shall elect a secretary of the board and a treasurer of the university, who shall hold their offices two years, or until their successors are in like manner appointed and qualified.

SEC. 4079. Both of said offices shall not be held by the same person at one time.

SEC. 4080. The said secretary and treasurer shall each execute such bonds and perform such duties as are now required by law, and under such regulations as may be prescribed by the said board of trustees.

SEC. 4081. The compensation allowed the secretary shall be fixed at $600 per annum and the salary of the treasurer shall be fixed at $300 per annum, and in no case shall the salary of either officer for any and all services rendered the said board of trustees of the university be increased unless by an act of the general assembly. (Act April 14, 1893.)

SEC. 4082. The said treasurer and secretary shall each execute a bond to the State of Arkansas, for the use of the university, with security approved by the board or the president thereof, in vacation, in such sum as they may require, not less than $10,000, for the faithful performance of all the duties that may appertain to their respective offices, which bonds shall be filed in the office of the secretary of state. (Act March 6, 1875, sec. 3.)

SEC. 4083. It shall be the duty of said secretary to keep, in a well-bound book to be furnished for that purpose, a true and correct record of the transactions of said board, which shall be open to the inspection of any citizen of this State at all times on demand. He shall also have the custody of all books, papers, documents, and other property which may be deposited in his office by the order of said board, and also the buildings and grounds pertaining to said university, and shall, from time to time, and so often as directed by said board, prepare and transmit to the superintendent of public instruction reports of any of the transactions of said board of trustees as may be ordered. (Act March 30, 1887, sec. 3.)

SEC. 4084. Said treasurer shall at no time draw from the treasurer of the State or have on hand more than $10,000, and the same shall be paid out as the board shall direct. (Act March 27, 1871.)

SEC. 4085. The board shall have power to remove such officers. (Ib.)

SEC. 4086. The general assembly, in appropriating moneys for the benefit of said university, shall specify the precise amount that it intends to appropriate for each and every purpose, and the trustees of said institution shall apply each sum as thus directed, and in no other way. (Act February 20, 1883.)

SEC. 4087. No appropriation made for any specific purpose shall be used for any other purpose, and the power of contracting debts by the board of trustees in the absence of any appropriation is expressly prohibited. (Act April 4, 1893.)

SEC. 4088. (See act of April 19, 1895, *post*.)

SEC. 4089. Any vacancies in the number of beneficiaries during the terms of the university shall be filled by appointment by the judge of the county court. Any beneficiaries appointed as herein prescribed shall comply with the rules and regulations provided by the board of trustees in reference to such beneficiaries.

SEC. 4090. It shall be the duty of the judge of the county court, immediately upon receiving notification from the board of trustees as above provided, to give notice, in the manner prescribed by law for the publication of legal notices, of the number of beneficiaries allowed to the county, and of the time, manner, and place of making appointments to the same, and no person shall be admitted to the said university as a beneficiary who has not been appointed in accordance with the provisions of this section.

SEC. 4091. By section 11, act March 30, 1887, provision was made for the erection of dormitories for the use of the beneficiaries, and provided that if the beneficiaries were not sufficient in number to fill such dormitories the president may permit other students to occupy the surplus room.

SEC. 4092. Females may be received as beneficiaries. (Act March 18, 1889, amending sec. 5, act March 30, 1887.)

SEC. 4093. The faculty of said university shall consist of a president and such professors as the board of trustees may deem necessary, whose compensation shall be fixed by the board of trustees. One of said professors shall be styled the superintendent of agriculture, whose duty it shall be to supervise the agricultural department, and to perform such other duties as may be necessary in order to impart a theoretical and practical knowledge of the science of agriculture to the students over whom he shall have control. One of said professors shall be styled the superintendent of mechanic arts, whose duty it shall be to supervise the

mechanical department, and to perform such other duties as may be necessary in order to impart to those under his care a theoretical and practical knowledge of the mechanic arts: *Provided*, The board of trustees may employ such assistants as they may deem necessary, whose compensation shall be fixed by said board of trustees: *And provided*, The manner of payment of all salaries shall be regulated by said board. (Act March 31, 1891, amending sec. 8, act March 30, 1887.)

SEC. 4094. The salary of president of the faculty shall be $2,000 per annum, payable quarterly; that of professors and superintendents, each the sum of $1,500 per annum, payable quarterly, except the superintendent of agriculture and the superintendent of mechanic arts, which shall be $1,600 each. (Act March 30, 1887, section 9.)

SEC. 4095. The course of study in said university shall embrace agricultural chemistry, animal and vegetable anatomy, and physiology, the application of science and the mechanic arts to practical agriculture in the field, veterinary arts, entomology, rural and household economy and horticulture, practical mechanic arts as taught in the workshops, the English language and literature, mathematics, civil engineering, philosophy, history, and bookkeeping; including military tactics and such other branches of study as the board of trustees may prescribe.

SEC. 4096. Each male student below the sophomore class shall be compelled, as a part of his education, to work at least two hours each school day, either in the field or workshop, under the direction of their respective superintendents; the labor to be paid for at such rate as may be prescribed by the board of trustees, to be applied to the board of such students: *Provided*, Any student may be allowed to do extra work with the consent of the faculty and receive pay for the same. (Act March 31, 1891, amending section 6, act March 30, 1887.)

SEC. 4097. The board of trustees shall direct, order, and restrict all improvements made on the farm, such as repairing and building fences, repairing and building houses, buying stock, utensils, etc., repairing and resetting fruit trees, etc., all of which shall be done in a practical and economical way: *Provided*, As far as practicable all labor to be performed on or about said farm shall be done by the students of the university.

SEC. 4098. The proceeds arising from the sale of the products of the agricultural and mechanical departments shall constitute a fund out of which to pay for the labor performed by the students in said departments.

SEC. 4099. No student shall be allowed more than 10 nor less than 3 cents per hour for his labor.[a]

SEC. 4100. By a special act of date March 30, 1883, and an amendment thereto, April 9, 1891, a prohibition district of 3 miles is established with the university as the center. The selling and giving away of spirituous, vinous, or malt liquors is forbidden unless the same is given by a physician as medicine, and not by him except under the restrictions of the act. Anyone interested in the sales, or suffering the liquors to be sold in a house owned or controlled by them, shall likewise be guilty. Stringent provisions for the prosecution and detection of such sales are provided by the acts aforesaid.

SEC. 3401. It shall be the duty of the superintendent of agriculture [professor of chemistry, act April 9, 1895] at the experimental station of the university [at the State university, ib.] to make or cause to be made a chemical analysis of every sample of commercial fertilizer so furnished him, and he shall issue a certificate to the person or company so furnishing said sample, setting forth that said analysis is a true and complete analysis of the sample furnished him of such brand of fertilizer, giving the per cent of ammonia, potash, and available [soluble, reverted, and insoluble, act April 9, 1895] phosphoric acid of such sample of commercial fertilizer so furnished, and all other available fertilizing ingredients in said sample.

SEC. 3402. Every package of commercial fertilizer offered for sale within the State whose value is more than $10 per ton must have placed upon or securely attached to each package by the manufacturer a guarantee analysis * * * which shall substantially correspond with the analysis of the sample of same brand so furnished the superintendent of agriculture [professor of chemistry, act April 9, 1895].

SEC. 3404. The superintendent [professor of chemistry, act April 9, 1895] of the State university shall receive for analyzing a fertilizer and affixing his certificate thereto the sum of $15 for each and every brand of fertilizer analyzed for any

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[a] Note by the editors of the digest: "This provision is apparently in conflict with the act of March 31, 1891, section 4096, but as the same provision was in section 6, act of March 30, 1887, of which section 4096 is an amendment, it seems to have been the legislative intent that the two provisions be harmonized, both being in the same act.

manufacturer or vendor; but any agriculturist of the State or purchaser of any commercial fertilizer in this State may take a sample of the same, under the rules and directions of the said superintendent of agriculture [professor of chemistry, act April 9, 1895] at the said experiment station, and forward same to said superintendent of agriculture [professor of chemistry] for analysis, which analysis shall be made free of charge. (Act March 8, 1889.)

Act approved April 19, 1895, section 4088 supra, was amended to read thus:

SEC. 4088. It shall be the duty of the board of trustees to apportion the number of beneficiaries who shall be admitted as students in the university without tuition among the several counties of the State according to population and to notify the county judge of each county of the number apportioned to the county at least two months prior to the beginning of each regular annual session of the school; and it shall be the duty of the county judge to appoint from the actual residents of the county the number of beneficiaries to which it may be entitled, a preference being given to those noted for diligence and proficiency in study, and the appointments so made shall be entered of record. If the judge of any county shall fail to appoint its quota of beneficiaries, or if those appointed shall fail to attend, the president of the university shall appoint such beneficiaries to the full number authorized by law from other counties having their full quota: *Provided*, Such appointments shall be vacated on application of the county judge of a county so failing to fill its quota.

Act approved May 23, 1901: SECTION 1. Whereas the State of Arkansas now holds $30,000 of bonds issued by the city of Fayetteville, in trust as a permanent endowment fund for the University of Arkansas, and whereas said bonds mature on the 1st day of January, 1902, and whereas the city of Fayetteville will be enabled to meet the entire obligation, now therefore the State treasurer is hereby authorized to surrender such number of said bonds to the city of Fayetteville as it may be able to pay and does pay when such bonds mature.

SEC. 2. The city of Fayetteville is authorized and empowered to issue new 5 per cent bonds, payable in twenty years, or at the option of said city in five years, in lieu of the bonds said city is unable to pay, and the State treasurer shall surrender the old bonds at maturity and accept the new bonds in exchange therefor.

SEC. 3. Whereas the act of 1871, locating the University of Arkansas, provided that the county or corporation securing the location should not be required to pay more than one year's interest on its bonds before the completion of the buildings, and in case more than one year's interest was collected by the State that the State would refund said interest; and whereas by act of 1875 the legislature refunded to Washington County $16,000 in 6 per cent bonds for the interest erroneously collected from said county on its university bonds for the years 1873 and 1874, and whereas the State erroneously collected $4,800 and has never refunded said amount to said city, therefore the State treasurer at the time of settlement shall surrender to said city such numbers of the old university bonds as shall amount to said tax so erroneously collected.

SEC. 4. All money paid by the city of Fayetteville for said bonds shall be invested by the State debt board as a permanent endowment fund for said university in safe securities, and such securities, together with the new 5 per cent bonds issued by said city, shall be held by the State treasurer in trust for said university, and the interest annually collected thereon shall be turned over to the treasurer of said university.

SEC. 4. That the city council of the city of Fayetteville shall destroy and burn the old bonds turned over to said city at the time of settlement by the State treasurer at their first regular meeting after settlement.

CALIFORNIA.

Constitution (1879), Article IX: SECTION 1. A general diffusion of knowledge and intelligence being essential to the preservation of the rights and liberties of the people, the legislature shall encourage by all suitable means the promotion of intellectual, scientific, moral, and agricultural improvement.

SEC. 2. The public school system shall include primary and grammar schools, and such high schools, evening schools, normal schools, and technical schools as may be established by the legislature, or by municipal or district authority, but the entire revenue derived from the State school fund, and the State school tax, shall be applied exclusively to the support of primary and grammar schools.

SEC. 8. No public money shall ever be appropriated for the support of any sectarian or denominational school, or any school not under the exclusive control of the officers of the public schools, nor shall any sectarian or denominational doc-

trine be taught, or instruction therein be permitted, directly or indirectly, in any of the common schools of the State.

SEC. 9. The University of California shall constitute a public trust, and its organization and government shall be perpetually continued in the form and character prescribed by the organic act creating the same, passed March 23, 1868, and the several acts amendatory thereof, subject only to such legislative control as may be necessary to insure compliance with the terms of its endowments, and the proper investment and security of its funds. It shall be entirely independent of all political and sectarian influence, and kept free therefrom in the appointment of its regents and in the administration of its affairs: *Provided*, That all the moneys derived from the sale of the public lands donated to this State by act of Congress, approved July 2, 1862, and the several acts amendatory thereof, shall be invested as provided by said acts of Congress, and the interest of said moneys shall be inviolably appropriated to the endowment, support, and maintenance of at least one college of agriculture, where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to scientific and practical agriculture and the mechanic arts, in accordance with the requirements and conditions of said acts of Congress; and the legislature shall provide that if, through neglect, misappropriation, or any other contingency, any portion of the funds so set apart shall be diminished or lost, the State shall replace such portion so lost or misappropriated, so that the principal thereof shall remain forever undiminished. No person shall be debarred admission to any of the collegiate departments of the university on account of sex.

Statutes of California, act March 23, 1868: SECTION 1. A State university is hereby created pursuant to the requirements of section 4, article 9, of the constitution of the State of California.[a]

[The following matter is taken from the Political Code of the State of California, compiled by James H. Deering, San Francisco, 1899.]

SEC. 1385. The University of California, located in Alameda County, has for its object general instruction and education in all the departments of science, literature, art, industrial and professional pursuits, and special instruction for the professions of agriculture, the mechanic arts, mining, military science, civil engineering, law, medicine, and commerce.

SEC. 1386. There must be maintained in the university—

1. A college of letters.

2. A college or colleges of science, including agriculture, mechanics, mining, engineering, chemistry, and such other specialties as the board of regents may determine.

3. Colleges of medicine and law.

4. Such other colleges as the board of regents may establish.

SEC. 1387. The college of letters must embrace a liberal course of instruction in language, literature, and philosophy.

SEC. 1388. Each full course of instruction consists of its appropriate studies and courses, to be determined by the board of regents.

SEC. 1389. The president of the university is the executive head of the institution in all its departments, except as herein otherwise provided.

SEC. 1390. He must, subject to the board of regents, give general direction to the practical affairs of the several colleges, and, in the recess of the board of regents, may remove any employee or subordinate officer not a member of any faculty and supply for the time being any vacancies thus created; and until the regents otherwise direct he is charged with the duties of one of the professorships.

SEC. 1391. The immediate government of the several colleges is intrusted to their respective faculties, each of which must have its own organization, regulate its own affairs, and may recommend the course of study and the text-books to be used.

SEC. 1392. Any resident of California of the age of 14 years or upward, of approved moral character, may enter himself in the university as a student at large and receive tuition in any branches of instruction at the time when the same

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[a] Constitution of 1849: The legislature shall take measures for the protection, improvement, or other disposition of such lands as have been or may hereafter be reserved or granted by the United States or any person or persons to the State for the use of the university; and the funds accruing from the rents or sale of such lands, or from any other source for the purpose aforesaid, shall be and remain a permanent fund, the interest of which shall be applied to the support of said university, with such branches as the public convenience may deem for the promotion of literature, the arts, and sciences as may be authorized by the terms of such grant. And it shall be the duty of the legislature, as soon as may be, to provide effectual means for the improvement and permanent security of the funds of said university.

are given in their regular course on such terms as the board of regents may prescribe.

SEC. 1393. An admission fee and rate of tuition fixed by the board of regents must be required of each pupil, except as herein otherwise provided.

SEC. 1394. As soon as the income of the university shall permit, admission and tuition must be free to all residents of the State; and the regents must so apportion the representation of students, according to population, that all portions of the State may enjoy equal privileges therein.

SEC. 1395. If approved by the board of regents, scholarships may be established in the university by any persons for the purpose of private benefaction or of affording tuition in any course of the university free from the ordinary charges to any scholar in the public schools of the State who may distinguish himself in study, according to the recommendation of his teachers, and who passes the examination required for the grade at which he wishes to enter the university.

SEC. 1396. The board of regents may affiliate with the university any incorporated college of medicine, law, or other special course of instruction upon such terms as may be deemed expedient; and such college may retain the control of its own property, have its own board of trustees, faculties, and presidents, respectively, and the students of such colleges, recommended by the respective faculties thereof, may receive from the university the degrees of those colleges.

SEC. 1397. The examination for degrees must be annual. Students who have passed not less than a year as residents in any college, academy, or school in this State, and who, after examination by the faculty thereof, are recommended by them as proficient candidates for any degree in any regular course of the university, must be examined therefor at the annual examination, and on passing such examination may receive the degree and diploma for that course and rank as graduates.

SEC. 1398. All students of the university who have been residents thereat for not less than one year, and all graduates thereof, may present themselves for examination in any course at the annual examinations, and, on passing such examination, may receive the degree and diploma of that course.

SEC. 1399. Upon such examinations each professor and instructor of that course may cast one vote, by ballot, upon each application for recommendation to the board of regents for a degree.

SEC. 1400. Graduates of the College of California and of any incorporated college affiliated with the university may receive the degrees from and rank as graduates of the university.

SEC. 1401. The board of regents may also confer certificates of proficiency in any branch of study upon such students of the university as upon examination are found entitled to the same.

SEC. 1402. The proper degree of each college must be conferred at the end of the course upon such students as, having completed the same, are found proficient therein.

SEC. 1403. The degree of bachelor of arts, and afterwards the degree of master of arts, in usual course must be conferred upon the gradutes of the college of letters.

SEC. 1404. A system of moderate manual labor must be established in connection with the agricultural college, upon its agricultural and ornamental grounds, for practical education in agricultural and landscape gardening.

SEC. 1405. No sectarian, political, or partisan test must ever be allowed or exercised in the appointment of regents, or in the election of professors, teachers, or other officers of the university, or in the admission of students thereto, or for any purpose whatsoever; nor must the majority of the board of regents be of any one religious sect or of no religious belief.

SEC. 1415. The endowment of the university is—

1. The proceeds of the sale of the 72 sections of land granted to the State for a seminary of learning.

2. The proceeds of the 10 sections of land granted to the State for public buildings.

3. The income derived from the investments of the proceeds of the sale of the lands or of the scrip therefor, or of any part thereof, granted to this State for the endowment, support, and maintenance of at least one college where the leading object shall be—without excluding other scientific and classical studies and including military tactics—to teach such branches of learning as are related to agriculture and the mechanic arts.

4. The income of the fund set apart by "An act for the endowment of the 'University of California,'" approved April 2, 1870, which is continued in force.

[An act for the endowment of the University of California. Chapter CCCCLX: The treasurer of the State shall place to the credit of the university fund so much of any moneys that may be

received by him from the net proceeds of sale of any salt marsh and tide lands lying in and around the Bay of San Francisco belonging to the State of California as, being invested in the bonds of said State or of the United States, shall yield an annual income of $50,000. Said moneys shall be a fund the capital of which shall remain undiminished and the interest of which shall be inviolably applied to the support of the University of California.]

6. The State of California, in its corporate capacity, may take, by grant, gift, devise, or bequest, any property for the use of the university, and hold the same, and apply the funds arising therefrom, through the regents of the university, to the support of the university as provided in Article IX, section 4, of the constitution [1849, see footnote, p. 22].

7. The regents of the university, in their corporate capacity, may take, by grant, gift, devise, or bequest, any property for the use of the university, or of any college thereof, or of any professorship, chair, or scholarship therein, or for the library, an observatory, workshops, gardens, greenhouses, apparatus, a students' loan fund, or any other purpose appropriate to the university; and such property shall be taken, received, held, managed, and invested, and the proceeds thereof used, bestowed, and applied by the said regents for the purposes, provisions, and conditions prescribed by the respective grant, gift, devise, or bequest.

8. The regents of the university may invest any of the permanent funds of the university which are now or hereafter may be in their custody in productive, unincumbered real estate in this State, subject to the power of the legislature to control or change such investments, excepting such as, by the terms of their acquisition, must be otherwise invested.

9. If by the terms of any grant, etc., such as are described in the preceding sixth and seventh subdivisions, conditions are imposed which are impracticable under the provisions of the civil code, such gift, etc., shall not thereby fail, but such conditions shall be rejected, and the intent of the donor carried out as near as may be.

SEC. 1425. The university is under the control of a board of regents consisting of 22 members, but the president of the university for the time being shall be a member of the board of regents by virtue of his office.

SEC. 1426. Sixteen members of the board are appointed by the governor, with the advice and consent of the senate. Their term of office is sixteen years.

SEC. 1427. Six members of the board hold by virtue of their office. [SEC. 353: The governor, lieutenant-governor, speaker of the assembly, superintendent of public instruction, president of the State board of agriculture, and president of the Mechanics' Institute of San Francisco are ex officio regents of the University of California.]

SEC. 1428. Whenever a vacancy occurs in the board the governor must appoint some person to fill it, and the person so appointed holds for the remainder of the term.

SEC. 1429. The governor is president of the board.

SEC. 1430. Seven members constitute a quorum of the board.

SEC. 1431. The members receive no compensation.

SEC. 1432. The powers and duties of the board of regents are as follows:

1. To meet at such times and places as their rules may prescribe or at the call of the president of the board.

2. To control and manage the university and its property.

3. To prescribe rules for their own government and the government of the university.

4. To adopt and prescribe rules for the government and discipline of the cadets.

5. To receive in the name of the State or of the board of regents, as the case may be, all property donated to the university.

6. To choose the president of the university, the professors, and other officers and employees of the university, prescribe their duties, fix and provide for the payment of their salaries.

7. To fix the qualifications for admission to the benefits of the university.

8. To fix the admission fee and rates of tuition.

9. To appoint a secretary and treasurer, prescribe their duties, and fix and provide for the payment of their compensation.

10. To remove at pleasure any officer, professor, or employee of the university.

11. To supervise the general courses of instruction and, on the recommendation of the several faculties, prescribe the authorities and text-books to be used in the several colleges.

12. To confer such degrees and grant such diplomas as are usual in universities or as they may deem appropriate.

13. To establish and maintain a museum.

14. To establish and maintain a library.

15. To take immediate measures for the permanent improvement and planting of the university grounds.

16. To keep a record of all their proceedings.

17. Through the president of the university, to report to the governor the progress, condition, and wants of each of the colleges embraced in the university, the course of study in each, the number of professors and students, the amount of receipts and disbursements, together with the nature, cost, and results of all important investigations and experiments, and such other information as they may deem important.

SEC. 1433. The entire income arising from the endowment is subject to the trusts at the disposition of the board of regents for the support of the university.

SEC. 1434. For the current expenditures of the university specific sums of money must be set aside, out of the funds at their disposal, by the board of regents, which are subject to the warrants of the president of the board, drawn upon the treasurer of the university in pursuance of the orders of the board of regents.

SEC. 1435. All moneys which may at any time be in the State treasury, subject to the use of the board of regents, may be drawn therefrom by the president of the board, upon the order of the board, in favor of the treasurer of the university.

SEC. 1436. The regents must cause to be constructed such buildings as are needed for the use of the university.

SEC. 1437. The plan adopted in the construction of buildings must provide separate buildings for separate uses, and so group all such buildings that a central building may bring the whole in harmony as part of one design.

SEC. 1438. The construction and furnishing of the buildings must be let out to the lowest responsible bidder, after advertisement for not less than ten days in at least two daily newspapers published in the city of San Francisco; but the regents may reject any bid and advertise anew.

SEC. 1439. Until the university buildings are ready for use the regents may make temporary arrangements for buildings at Oakland.

SEC. 1449. A practical agriculturist, competent to superintend the working of the agricultural farm, and to discharge the duties of secretary of the board of regents, must be chosen by the board as their secretary.

SEC. 1450. The Secretary must—

1. Reside and keep his office at the seat of the university.

2. Keep a record of the transactions of the board of regents, which must be open at all times to the inspection of any citizens of this State.

3. Have the custody of all books, papers, documents, and other property which may be deposited in his office.

4. Keep and file all reports and communications which may be made to the university appertaining to education, science, art, husbandry, mechanics, or mining.

5. Address circulars to societies and others soliciting information upon the latest and best modes of culture of the products adapted to the soil and climate of the State, and on all subjects connected with field culture, horticulture, stock raising, and the dairy.

6. Correspond with established schools of mining and metallurgy in Europe, and obtain information respecting the improvements of mining machinery adapted to California.

7. Correspond with the Patent Office at Washington and with the representatives of the Government of the United States abroad, to procure contributions from these sources; receive and distribute seeds, plants, shrubbery, and trees adapted to our climate and soils, for the purposes of experiment.

8. Obtain contributions to the museums and the library of the university.

9. Keep a correct account of all the executive acts of the president of the university.

10. Keep an accurate account of all moneys received into the treasury or paid therefrom.

11. Distribute the seeds, plants, trees, and shrubbery received by him, and not needed by the university, equally throughout the State, to farmers and others who will agree to cultivate them properly and return to the secretary's office a reasonable proportion of the products thereof, with a statement of the mode of cultivation, and such other information as may be necessary to ascertain their value for cultivation in the State.

12. Publish from time to time in the newspapers of the State, free of charge, information relating to agriculture, the mechanic arts, mining and metallurgy.

SEC. 1451. The secretary holds office at the pleasure of and receives the compensation fixed by the board.

SEC. 1461. The academic senate is composed of the faculties and instructors of the university.

SEC. 1462. The senate must conduct the general administration of the university, regulate the general and special courses of instruction, receive and determine all appeals from acts of discipline enforced by the faculty of any college, and exercise such other powers as the board of regents may confer upon it.

SEC. 1463. Its proceedings must be conducted according to rules of order adopted by it, and every person engaged in instruction in the university may participate in its discussions; but the right of voting is confined to the president and the professors.

SEC. 1473. The students of the university must be organized into a body known as the "university cadets."

SEC. 1474. The officers of cadets, between and including the ranks of second lieutenant and colonel, must be selected by the chief military instructor, with the assent of the president of the university, and must be commissioned by the governor.

SEC. 1475. The adjutant-general of the State must issue such arms, munitions, accouterments, and equipments to the university cadets as the board of regents may require and the governor approve.

SEC. 1476. Upon graduating or retiring from the university, such officers may resign their commissions or hold the same as retired officers of the university cadets, liable to be called into service by the governor in case of war, invasion, insurrection, or rebellion.

SEC. 1477. The military instructor must make quarterly reports to the adjutant-general of the State, showing the number, discipline, and equipments of the cadets.

SEC. 3533. The regents of the university may order the selection of the 150,000 acres of land granted to the State for the use of an agricultural college, and dispose of the same at the price and in the manner fixed by them.

SEC. 3534. The land agent of the university, as the agent of the State, must select the lands according to the instructions of the board, and issue certificates of purchase and patents to purchasers who comply with the conditions fixed by the board; and the regents must invest all moneys accruing from the sale of lands as they may deem best, subject to the conditions of the act of Congress granting such lands.

SEC. 3535. All moneys, securities, or other properties arising from the sale of the 72 sections granted to the State for a seminary of learning, and from the sale of the 10 sections granted to the State for the erection of public buildings, must be paid out of the State treasury on the order of the regents of the university.

SEC. 3536. All persons who have purchased any portion of either of the grants mentioned in the preceding section, and who have not paid in full therefor must be included in the delinquent list, and the district attorney must proceed against such delinquents as provided in sections 3547 and 3548, and the provisions of sections 3548 to 3556 inclusive, are made applicable to such proceedings. If such lands revert to the State, they pass under the control of and may be sold by the board of regents of the university.

SEC. 332. All officers, boards of officers, commissioners, trustees, regents, and directors required by law to make reports to the governor or legislature, except the controller of State, must send the original draft of such reports to the governor before the 15th day of September in the year 1892, and in every second year thereafter.

SEC. 334. The superintendent of State printing must print such reports or such part or parts of said reports as may be ordered by the State board of examiners, in a manner to be designated by said board, before the first Monday in December next after receipt thereof, except the report of the State comptroller, etc.

SEC. 336. All reports must be printed in the English language.

SEC. 550. The geological and other specimens collected by the State geological survey must, excepting such as may be required by the State geologist to aid in the preparation of his report, be delivered over to the agents of the State University, to be by them deposited in the cabinet of the same as the property of the university.

Statutes, 1889, Chapter XVII: Whereas, by section 9 of an act to establish agricultural experiment stations in connection with the colleges established in the several States, it is provided that the grants of moneys authorized by this act are made subject to the legislative assent of the several States and Territories to the purposes of said grants; therefore be it resolved, that the State of California does hereby assent to the grants named in said act, approved March 2, 1887, and to the conditions thereof, for and on behalf of the State of California and the board of regents of the University of the State of California. And be it further resolved that the State of California does hereby specifically designate "The board of

regents of the University of California," a corporation organized and existing under the laws of California, and controlling the University of California, the only institution in this State established in accordance with the provisions of an act approved July 2, 1862, as the institution to which this grant is by law assigned for the benefit of agricultural experiment stations connected with the said university. Be it further resolved, that his excellency the governor of California be requested to transmit to the Secretary of the Treasury of the United States a copy of these resolutions, duly certified by the secretary of state.

Statutes, 1869–70. Act to amend the act of March 28, 1868, providing for the management and sale of the lands belonging to the State, approved April 4, 1870:

SEC. 60. The board of directors of the Agricultural, Mining, and Mechanical Arts College, or such corporations as may be appointed by law to succeed them, shall have power to order the selection of the grant of 150,000 acres of land granted to the State for the use of an agricultural college, and dispose of the same at such price and in such manner as they shall deem best for the interests of the college, and it shall be the duty of the land agent of the university, as the agent of the State, to select the lands in the United States land offices, according to the instructions of said board or corporation; and it shall be the duty of the said land agent to issue certificates of purchase and patent to purchasers who comply with the conditions ordained by the said board or corporation, in the manner prescribed in sections 4 and 5 of this act; and the said board or corporation shall invest any and all moneys accruing from the sale of said lands as they shall deem best, subject only to the conditions of the act of Congress granting such lands.

In a case (White *v.* Douglass) involving the ownership of lands held by the State as trustee or agent of the grant made for the establishment of an institution or institutions for the benefit of agriculture and mechanic arts, July 2, 1862, the supreme court decided that under the Congressional grant to the State of lands for the use of an agricultural college, the State, as owner for the purposes of the grant, had the right to select the lands from surveyed or unsurveyed public lands of the United States, subject to preemption and sale, within the limits of the State, and to prescribe how the selection should be made, and to whom, and in what manner the lands would be sold. (71 Calif., Sept. 27, 1886.)

In a case decided by the supreme court January 16, 1883 (Hollister *v.* Sherman, tax collector), it was decided that all property administered by the regents of the State University is exempt from taxes, and a deed of the tax collector on a sale of property so administered under an assessment against the regents would be void on its face. In People *v.* Supervisors this was reaffirmed. "In our opinion the value of the mortgage to the regents of the university was properly deducted from the full value of the property."

In Lundy *v.* Dalmas (104 Calif., 655): "The regents of the University of California, under the organic act of March 23, 1868, and the subsequent steps taken by them to incorporate, became and are a corporation."

2. The regents of the University of California are not individually liable for the damage done by alleged negligence of a public corporation.

3. Under the provisions of the organic act of March 23, 1868, and of section 9 of Article IX of the constitution, the regents are not public officers. Section 343 of the Political Code, designating them as "civil executive officers," was repealed by said section of the constitution.

The entire income of such funds shall be placed at the disposition of the board of regents for the support of the university. All moneys which may at any time be in the State treasury, and subject to the use of the said board of regents, may be drawn therefrom by the president of the board upon the order of said board in favor of the treasurer of the university.

The constitution having declared (sec. 22) that no money shall be drawn from the treasury but in consequence of appropriations made by law, and upon warrants duly drawn thereon by the controller, a question arose as to the power of the board under this section of this act of March 28, 1868, establishing the university. The supreme court settled the point in the case of Regents of University of California *v.* W. A. January, [State] treasurer, the syllabus of which reads as follows: "All moneys in the State treasury subject to the use of the board of regents of the University of California may be drawn therefrom upon the order of the board indorsed by the governor, and no appropriation or warrant from the controller is necessary for that purpose. (66 Cal., Mar. 16, 1885, p. 507.) In view of these statutory and constitutional provisions, we do not doubt that it was the duty of the respondent [State treasurer] to comply with the resolution of the regents, without requiring in addition thereto a warrant of the controller, or the depositing of an equivalent security, and without regard to the use which the regents proposed to make of the money. With that the respondent had nothing to do. Nor can we pass upon that question in this proceeding. We might give our individual views on it, but we more than doubt the propriety of doing so. The only question which we can decide is whether, upon the face of the facts disclosed by the record, a writ should issue as prayed. The fact of a proper demand having been made on the respondent, and his having refused to perform a duty plainly devolved on him by law, entitles the petitioners to the writ [mandamus]."

COLORADO.

Constitution (1876), Article VIII, State Institutions: SECTION 1. Charitable institutions established: 1. Educational, reformatory, and penal institutions, and those for the benefit of the insane, blind, deaf, and mute, and such other institutions as the public good may require, shall be established and supported by the State, in such manner as may be prescribed by law.

Article IX: SEC. 7. Aid to sectarian schools, [or] churches forbidden. Neither the general assembly, nor any county, city, town, township, school district, or other public corporation shall ever make any appropriation, or pay from any

public fund or moneys whatever, anything in aid of any church or sectarian society, academy, seminary, college, university, or other literary or scientific institution controlled by any church or sectarian denomination whatsoever; nor shall any grant or donation of land, money, or other personal property ever be made by the State, or any such public corporation, to any church for sectarian purposes.

SEC. 8. Religious test forbidden, etc.—No religious test or qualification shall ever be required of any person as a condition of admission into any public educational institution of the State, either as teacher or student; and no teacher or student of any such institution shall ever be required to attend or participate in any religious service whatever. No sectarian tenets or doctrines shall ever be taught in the public schools, nor shall any distinction or classification of pupils be made on account of race or color.

Article VIII: SEC. 5. Territorial institutions become State institutions.—The following Territorial institutions, to wit, the University at Boulder, the Agricultural College at Fort Collins, the School of Mines at Golden, the Institute for the Education of Mutes at Colorado Springs, shall, upon the adoption of this constitution, become institutions of the State of Colorado, and the management thereof subject to the control of the State, under such laws and regulations as the general assembly shall provide, and the location of said institutions, as well as all gifts, grants, and appropriations of money and property, real and personal, heretofore made to said several institutions, are hereby confirmed to the use and benefit of the same, respectively: *Provided*, This section shall not apply to any institution, the property, real or personal, of which is now vested in the trustees thereof, until such property be transferred by proper conveyance, together with the control thereof, to the officers provided for the management of said institution by this constitution or by law.

[In response to a senate resolution to this effect, to wit: Doubt exists as to the meaning of section 5, Article VIII, of the constitution, the supreme court said: "We call attention to section 2 and section 4 of the article (these fix the seat of government and its capitol building). If the framers of the constitution had not regarded section 5 as permanently locating the institutions named, it is reasonable to suppose that they would have made some explicit provision with regard to their permanent location. * * * The absence of such provisions supports the construction which we have given. It follows that the locations of the institutions named, or of any one of them, can not be changed except by an amendment to the constitution." (December term, 1896, 9 Col., p. 628.)]

[The following matter has been taken from Mills' Annotated Statutes (1891 ed.) and the supplement thereto, "including * * * all laws not in volumes 1 and 2, to January 1, 1897." By J. Warner Mills. Denver, 1897.]

Chapter 2, division 1, Agricultural College: SEC. 36. That to provide a fund for the support and maintenance of the State Agricultural College, located at Fort Collins, there shall be assessed and levied annually upon all taxable property in this State the following tax, to wit: One-fifth of 1 mill on each dollar of the yearly assessed value of such property, which shall be known as the "agricultural college" tax, and shall be levied and collected at the same time and in the same manner provided by law for the assessment and collection of State taxes.

SEC. 37. It shall be the duty of every county treasurer in this State to provide suitable books, in which shall be entered an account of all taxes collected in pursuance of this act. He shall also enter in said book an account of all money transmitted to the State treasurer on account of said fund, as hereinafter provided.

SEC. 38. The fund so created shall be applied exclusively for the support of the Agricultural College of this State, and for the erection of such buildings as by the State board of agriculture shall be deemed advisable.

SEC. 39. It shall be the duty of the county treasurer in the several counties to preserve the agricultural college fund, as provided by this act, as a separate fund, and to transmit the same monthly to the treasurer of the State, who shall keep the same as an agricultural college fund, to be at the disposal of the State board of agriculture, as provided by this act.

SEC. 40. Whenever there shall be any money in the hands of the State treasurer to the credit of the agricultural college fund, deemed sufficient by the State board of agriculture to commence the erection of an agricultural college, the auditor of State is hereby authorized to draw his warrant upon the treasurer of the State in favor of the treasurer of said State board of agriculture, in such sums as said board shall deem necessary to carry on the erection or running expenses of said college: *Provided*, That nothing herein shall be construed as authorizing or empowering said board to create any indebtedness, in any year, beyond the tax so levied in that year for that purpose.

SEC. 41. The auditor of State shall draw his warrant upon the fund herein provided for, upon bills approved by the president of the State board of agriculture,

countersigned by the secretary of said board, to defray the lawful expenses incurred in building and supporting the agricultural college.

[The matter contained in section 36 to section 41, inclusive, was repealed by an act approved March 17, 1891. This act increased the tax to one-sixth of a mill for each of four State educational institutions, of which the Agricultural College was one, but the act was declared unconstitutional by the supreme court of Colorado.]

SEC. 42. This act shall not take effect unless the fee-simple title to the real estate known as the Agricultural College of Colorado shall, within ninety days from the passage of this act, be vested in said State board of agriculture free of any condition whatever. When the said title shall be so vested, it shall be the duty of the attorney-general to certify such fact in writing to the State auditor, and the State auditor shall notify the county clerks of the several counties of this State of the same, in order that the tax herein provided may be properly levied and assessed.

SEC. 43. That for the purpose of further carrying out the provisions of the act of Congress approved July 2, 1862, in relation to agricultural colleges, the military body known as the Agricultural College Cadets, of the Colorado Agricultural College, is hereby organized as an auxiliary branch of the Colorado National Guard, and is placed upon the same footing as regards arms, ammunition, and camp and garrison equipage as the Colorado National Guard.

SEC. 44. That the proper officers of said Colorado National Guard are hereby authorized and directed to honor the requisition of the commanding officer of said Agricultural College Cadets, under such rules and regulations as may hereafter be prescribed by the State military board and the State board of agriculture, when countersigned by the president of said college, for 10 rounds of ammunition per year for each member of said military body, and for such camp and garrison equipage as may be necessary for the proper instruction of said body in all that pertains to the practical duties of soldiers in camp.

SEC. 44a. The cadets of the State Agricultural College shall be attached to the Colorado National Guard, under such rules and regulations as may hereafter be prescribed by the State military board and the State board of agriculture.

SEC. 45. That for the furtherance and promotion of the agricultural interests of the State, an agricultural experimental station shall be established in that section of country commonly known as the "Divide," in the northern part of El Paso County, the precise location to be determined as hereinafter provided.

SEC. 46. The State board of agriculture is authorized to select the necessary lands and secure the same, either by lease or purchase, as they may see fit, and to make all necessary improvements in the way of buildings and fences, and to take such steps as they deem necessary to successfully establish said station.

SEC. 47. The State board of agriculture shall have the control and supervision of said farm. They shall appoint a superintendent and such other officers and employees as may to them appear to be necessary to carry on the said farm successfully. They shall have power to fix salaries and all compensation of employees, and they are hereby empowered to fix such rules and regulations as may be by them deemed best for the successful attainment of the object for which said station is to be established and maintained. They shall also appoint three resident trustees, who shall act without compensation, except when it becomes necessary they may be allowed traveling expenses in attending to the discharge of their duties.

SEC. 48. The object of this agricultural station shall be to determine the adaptability of crops of grain, grasses, root crops, and all other growths which may grow in this latitude; also the most economical method of producing the best results in growing such crops with and without irrigation. And in aid of these objects the board of agriculture may select land (not to exceed 200 acres) in the San Luis Valley out of the State lands there found for this purpose, and shall appoint three local trustees for the management of the same. And in aid of these objects the board of agriculture may select land (not to exceed 200 acres) in the Arkansas Valley, in the county of Bent, out of the State lands there found for this purpose, and shall appoint three local trustees for the management of the same. And in further aid of these objects the board of agriculture may select lands to the extent of 200 acres in the valley of Uncompahgre River, or the valley of the Gunnison River, or the valley of the North Fork of the Gunnison River, in Delta County, State of Colorado, for the purpose of an experimental agricultural station as herein provided, and shall appoint three local trustees to manage the same, such lands to be selected from State lands or secured by purchase, gift, or donation, as the board of agriculture may decide.

SEC. 49. The proceeds arising from the sale of products of said farms shall be applied in the liquidation of the running expenses, and all moneys so accruing

shall be credited as coming from the State and be applied as part or whole payment of any amount which may be appropriated from the funds of the State for the maintenance of said farm or station.

SEC. 50. To enable the State board of agriculture to carry out the provisions of this act, they are hereby authorized to expend such amount as they may deem necessary, in establishing the above-described stations, out of any moneys which may accrue to the State by action of the Congress of the United States for the purpose of establishing agricultural experiment stations in the various States and Territories of the United States.

SEC. 50a. That for the furtherance and promotion of the agricultural interests of this State an agricultural experiment station shall be established in the eastern half of Cheyenne County, the precise location to be determined as hereinafter provided.

SEC. 50b. The State board of agriculture is authorized to select the necessary lands and secure the same by gift or donation, and to make all necessary improvements in the way of buildings and fences, and to take such steps as they may deem necessary to successfully establish said station: *Provided*, That a site, containing not less than one quarter section of land, and $1,200 for equipping said station, be donated for this purpose by the community in which the same is located; and for the purpose of erecting said buildings and fences and of making all other necessary improvements for said station the sum of $2,500 is hereby appropriated out of the internal permanent improvement fund of the State.

SEC. 50c. The State board of agriculture shall have absolute control and supervision of said farm. They shall appoint a superintendent and such other officers and employees as they may deem necessary to carry on successfully the said farm. They shall have power to fix salaries and all compensation of employees and they are hereby empowered to make such rules and regulations as may to them appear necessary and expedient. They shall appoint three resident trustees, who shall act without compensation, except, when it becomes necessary, they may be allowed traveling expenses in the discharge of their duties.

SEC. 50d. The object of this agricultural experiment station shall be to determine the adaptability of crops of grain, grasses, root crops, and all other growths which may grow in this latitude; also the most economical methods of producing the best results in growing such crops without irrigation.

SEC. 50e. The proceeds arising from the sale of the products of said farm and from all other sources shall be paid to the treasurer of the board, and by the board disbursed for the use and benefit of said station.

SEC. 50f. To enable the State board of agriculture to carry out the provisions of this act, they are hereby authorized to expend such amount as they may deem necessary, in establishing the above-described station, out of any moneys which may accrue to the State by the action of Congress of the United States for the purpose of establishing agricultural experiment stations in the various States and Territories of the United States.

SEC. 51. That full and complete acceptance, ratification, and assent is hereby made and given by the State of Colorado to all of the provisions, terms, grants, and conditions, and purposes of the grants made and prescribed by the act of the Congress of the United States entitled "An act to establish agricultural experiment stations in connection with the colleges established in the several States under the provisions of an act approved July 2, 1862, and of the acts supplementary thereto."

SEC. 52. The State board of agriculture shall have the control of the fund appropriated by the said act of Congress, and shall disburse the same for the use and benefit of the agricultural experiment station department of the State agricultural college, and in accordance with the terms and provisions of said act of Congress.

SEC. 52a. Full and complete acceptance, ratification, and assent is hereby made and given by the State of Colorado to all of the provisions, terms, grants, and conditions, and purposes of the grants made and prescribed by the act of Congress of the United States entitled "An act to apply a portion of the proceeds of the public lands to the more complete endowment and support of the colleges for the benefit of agriculture and the mechanic arts established under the provisions of an act of Congress approved July 2, 1862."

SEC. 52b. The State board of agriculture shall have the control of the fund appropriated by the said act of Congress, and shall disburse the same for the use and benefit of the State agricultural college, and in accordance with the terms and provisions of said act of Congress.

CONNECTICUT.

[The following matter is taken from the General Statutes of Connecticut, Revision of 1887, published by the authority of the State, Hartford, Conn.]

SEC. 2252. Any person who shall give credit to a minor student of any college or university of this State without the written consent of his parent or guardian, or of an authorized officer of such institution, shall be fined not less than $20 nor more than $300.

SEC. 2253. (Repealed by act 1889, Chap. LII, q. v.) The bonds of this State indorsed and known as agricultural college bonds, and constituting the capital of the agricultural college fund, shall not be transferable except by a special act of the general assembly, but shall remain in the custody of the commissioner of the school fund; and the treasurer and said commissioner are hereby authorized to invest any money now in their hands, or that hereafter may come into their hands, belonging to the principal of said fund in any securities, except personal securities, in which by law the savings banks of this State may invest. Said commissioner shall semiannually receive and pay over the interest accruing upon said fund to the president and fellows of Yale College, for the purposes and on the conditions hereinafter set forth; and the treasurer shall pay interest at the rate of 5 per cent per annum on the principal of the agricultural college fund remaining in the treasury uninvested.

SEC. 2254. Said corporation shall devote the interest upon said fund wholly and exclusively to the maintenance, in that department of Yale College known as the Sheffield Scientific School, of such courses of instruction as shall carry out the intent of the act of Congress entitled "An act donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts," approved July 2, 1862, in the manner specially prescribed in the fourth section of said act.

SEC. 2255. Said corporation shall furnish gratuitous education in said courses of instruction to such citizens of this State as shall be annually nominated to be pupils of said school, in such manner as the general assembly shall prescribe. Their number shall be, in each year, such as would expend a sum equal to half said interest for the same year, in paying for their instruction in said school, if they were required to pay for it at the regular rates charged to its other pupils for the same year. Said pupils, so nominated and received, shall be admitted into said school upon the same terms and subject to the same rules and discipline which shall apply to all its other pupils, except that they shall pay nothing for heir instruction.

SEC. 2256. Said corporation shall annually make up and distribute the reports required by the fourth paragraph of the fifth section of the act of Congress designated in section 2254.

SEC. 2257. The governor, lieutenant-governor, the three senior senators, and the secretary of the board of education shall constitute a board of visitors, who shall visit said school in each year, and report thereon to the general assembly at each regular session.

SEC. 2258. Said visitors, with the secretary of the Sheffield Scientific School, shall constitute an appointing board, who shall select from such candidates as shall offer themselves those who shall be entitled to receive the gratuitous instruction in said school.

SEC. 2259. If there are more applications for the bounty of the State than there are vacancies to be filled on the part of the State, said board shall give the preference to such young men as are fitting themselves for agricultural, mechanical, or manufacturing occupations in life, and may have become orphans through the death of a parent in the naval or military service of the United States, and next to them, to such as are most in need of pecuniary assistance: and shall provide that the appointments shall be distributed, as far as practicable, among the several counties of the State, in proportion to their population.

SEC. 2260. The secretary of said school shall also be the secretary of said appointing board, and shall record their transactions, and shall, at least one month before the close of each academic year in said school, cause to be published in at least one newspaper in every county in this State an advertisement specifying the number of pupils entitled by law to be admitted into said school for gratuitous instruction during the ensuing academic year, and designating the time and manner in which application for admission may be made to said appointing board.

SEC. 1716. [Amended by section 2 of act of 1893, Chapter LXVII, also by act of 1899, *chapter 169.*] The Storrs Agricultural School shall remain an institution for the education of boys whose parents are citizens of this State in such branches of

scientific knowledge as shall tend to increase their proficiency in the business of agriculture.

SEC. 1717. [See act 1901, chapter 70.] There shall be appointed by the senate six trustees of said school. During the session of the general assembly of 1889 the senate shall appoint three of said trustees who shall hold office for four years, and three who shall hold office for two years, and biennually thereafter three trustees shall be so appointed, who shall hold office for the term of four years from and after the 1st day of July next succeeding their appointment. The Connecticut board of agriculture shall also annually elect a trustee, and the director of the Connecticut Agricultural Experiment Station shall be ex officio one of said trustees.

SEC. 1718. Said board of trustees are empowered to take and hold in behalf of the State of Connecticut deeds of such lands and other property and such money as may be donated for the purpose of establishing and maintaining said school.

SEC. 1719. To said board of trustees shall be committed the location of said school, the application of the funds for the support thereof, the appointment of managers and teachers, and the removal of the same, the power to prescribe the studies and exercises of pupils in said school, rules for its management, and the admission of pupils; and they shall annually report to the governor the condition of said school, and such annual reports shall be submitted to the general assembly at its regular sessions.

SEC. 331. [See Public Acts, 1899, chapter 147 post.] The comptroller shall cause to be printed, at the expense of the State, annually such numbers of copies of each of the following annual reports as is hereinafter stated; that is to say: * * * of the Storrs Agricultural School, 1,000; * * * of the report of the board of visitors of the Sheffield Scientific School, 1,000 copies.

SEC. 380. The estimates for the different classes of expenditures shall be made as follows, to wit: * * * for the State board of agriculture, the State experiment station, the Storrs Agricultural School, * * * by the secretary of the State board of agriculture.

SEC. 1710. The Connecticut Agricultural Experiment Station shall remain as now established, and its management shall be committed to a board of control, to consist of eight members, one member to be selected by the State board of agriculture, one member by the State Agricultural Society, one member by the governing board of the Sheffield Scientific School at New Haven, one member by the board of trustees of the Wesleyan University at Middletown, and two members to be appointed by the governor. The governor and the person appointed, as hereinafter provided, to be the director of the station shall also be ex officio members of the board of control, and the members of the board shall continue in office for the term of three years from the 1st day of July next succeeding their appointment.

SEC. 1711. Said board shall choose from among their number a secretary and a treasurer, each of whom shall be elected annually, and shall hold their respective offices one year, and until the choice of their successors. Five members of said board shall constitute a quorum.

SEC. 1712. Said board shall meet annually on the third Tuesday in January in each year, at such place in the city of Hartford as may be designated by the president of said board, and at such other times and places, upon the call of the president, as may be deemed necessary, and may fill vacancies which may occur in the offices of said board.

SEC. 1713. Said board of control shall locate and have the general management of the institution, and shall appoint a director, who shall have the general management and oversight of the experiments and investigations which shall be necessary to accomplish the objects of said institution, and shall employ competent and suitable chemists and other persons necessary to the carrying on of the work of the station. It shall have power to own such real and personal estate as may be necessary for carrying on its work, and to receive title to the same by deed, devise, or bequest. It shall expend all moneys appropriated by the State in the prosecution of the work for which said institution is established, and shall use for the same purpose the income from all funds and endowments which it may receive from other sources, and may sue and be sued, plead and be impleaded in all courts by the name of The Connecticut Agricultural Experiment Station. It shall make an annual report to the governor, which shall not exceed 200 [400 by act of 1893, Ch. XVIII] printed pages, and such annual reports shall be submitted to the general assembly at its regular sessions.

SEC. 1714. The sum of $8,000 annually is hereby appropriated to said Connecticut Agricultural Experiment Station, which shall be paid in equal quarterly installments to the treasurer of said board of control upon the order of the comp-

troller, who is hereby directed to draw his order for the same; and the treasurer of said board of control shall be required, before entering upon the duties of his office, to give a bond with surety to the treasurer of the State of Connecticut in the sum of $10,000 for the faithful discharge of his duties as such treasurer.

SEC. 1715. Upon the death or resignation of any of the members of the board of control the authority or institution by which such deceased member was originally appointed shall fill the vacancy so occasioned.

SEC. 4005. Every person or company who shall sell, offer, or expose for sale in this State any commercial fertilizer or manure the retail price of which is $10 or more than $10 per ton shall affix conspicuously to every package thereof a plainly printed statement, clearly and truly certifying the number of net pounds of fertilizer in the package, the name, brand, or trade-mark under which the fertilizer is sold, the name and address of the manufacturer, the place of manufacture, and the chemical composition of the fertilizer expressed in the terms and manner approved and currently employed by the Connecticut Agricultural Experiment Station. If any such fertilizer be sold in bulk, such printed statement shall accompany every lot and parcel sold, offered, or exposed for sale.

SEC. 4006. Before any commercial fertilizer the retail price of which is $10 or more than $10 per ton is sold, offered, or exposed for sale the manufacturer, importer, or party who causes it to be sold or offered for sale within this State shall file with the director of the Connecticut Agricultural Experiment Station two certified copies of the statement named in the preceding section, and shall deposit with said director a sealed glass jar or bottle containing not less than one pound of the fertilizer, accompanied by an affidavit that it is a fair average sample thereof.

SEC. 4007. The manufacturer, importer, agent, or seller of any commercial fertilizer the retail price of which is $10 or more than $10 per ton shall pay, on or before the 1st of May annually, to the director of the Connecticut Agricultural Experiment Station an analysis fee of $10 for each of the fertilizing ingredients contained or claimed to exist in said fertilizer: *Provided*, That when the manufacturer or importer shall have paid the fee required for any persons acting as agents or sellers for such manufacturer or importer, such agents or sellers shall not be required to pay the fee named in this section.

SEC. 4008. Every person in this State who sells or acts as local agent for the sale of any commercial fertilizer of whatever kind or price shall annually or at the time of becoming such seller or agent, report to the director of the Connecticut Agricultural Experiment Station his name, residence, and post-office address, and the name and brand of said fertilizer, with the name and address of the manufacturer, importer, or party from whom such fertilizer was obtained, and shall on demand of the director of the Connecticut Agricultural Experiment Station deliver to said director a sample suitable for analysis of any such fertilizer or manure then and there sold or offered for sale by said seller or agent.

SEC. 4009. No person or party shall sell, offer, or expose for sale in this State any pulverized leather, raw, steamed, roasted, or in any form, as a fertilizer or as an ingredient of any fertilizer or manure, without explicit printed certificate of the fact, such certificate to be conspicuously affixed to every package of such fertilizer or manure, and to accompany every parcel or lot of the same.

SEC. 4010. Every manufacturer of fish guano, or fertilizers of which the principal ingredient is fish or fish mass from which the oil has been extracted, shall, before manufacturing or heating the same and within thirty-six hours from the time such fish or mass has been delivered to him, treat the same with sulphuric acid or other chemical approved by the director of said experiment station in such quantity as to arrest decomposition: *Provided, however*, That in lieu of such treatment such manufacturers may provide a means for consuming all smoke and vapors arising from such fertilizers during the process of manufacture.

SEC. 4011. Any person violating any provision of the foregoing sections of this chapter shall be fined $100 for the first offense and $200 for each subsequent violation.

SEC. 4012. This chapter shall not affect parties manufacturing or purchasing fertilizers for their own private use and not to sell in this State.

SEC. 4013. The director of the Connecticut Agricultural Experiment Station shall pay the analysis fees received by him into the treasury of the station, and shall cause one or more analyses of each fertilizer to be made and published annually. Said director is hereby authorized, in person or by deputy, to take samples for analysis from any lot or package of manure or fertilizer which may be in the possession of any dealer.

SEC. 4014. The director of the Connecticut Agricultural Experiment Station

shall, from time to time, as bulletins of said station may be issued, mail or cause to be mailed two copies, at least, of such bulletins to each post-office in the State.

Public Acts 1889, Chapter LII: SECTION 1. The treasurer and the commissioner of the school fund shall invest the principal of the agricultural-college fund of this State in any securities, except personal securities, in which by law the savings banks of this State may invest, and said commissioner shall have the custody of all securities belonging to said fund, and shall cause a schedule of the same to be made and registered in books kept in his office. He shall receive all payments on account of said fund, receipt therefor, and deposit the same with the treasurer, taking said treasurer's receipt for the same, and he shall draw all orders upon its principal and receive from the treasurer, at least semiannually, all income so deposited and transmit the same to the president and fellows of Yale College for the purposes and conditions set forth in chapter 143 of the general statutes. The treasurer shall pay interest at the rate of 5 per cent per annum on the principal of said fund remaining in the treasury uninvested, and all expenses incurred in the management of said fund shall be paid from the treasury upon the order of said commissioner.

SEC. 2. Section 2353 of the general statutes is hereby repealed.

Ibid., Chapter XII: SECTION 1. The annual report of the Storrs School Agricultural Experiment Station shall be printed, bound and circulated as now provided by law for the annual report of the Connecticut Agricultural Experiment Station at New Haven.

Public Acts 1893, Chapter LXVII: The name of the Storrs Agricultural School is hereby changed to The Storrs Agricultural College, by which name it shall hereafter be known and called.

SEC. 2. Section 1716a of the general statutes is amended to read as follows: "The Storrs Agricultural College is hereby established, and shall remain an institution for the education of youth whose parent or parents are citizens of this State; and the leading object of said college shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the general assembly of this State shall prescribe, in order to promote the liberal and practical education of the industrial classes in accordance with the provisions of an act of Congress approved July 2, 1862, * * * also in accordance with an act of Congress approved August 30, 1890."

SEC. 3. Sections 1717, 1718, and 1719 of the general statutes are amended by striking out the word "school" whenever it occurs and inserting the word "college."

SEC. 4. Section 2353 of the general statutes [confer section 2 of act of 1889, Chapter LII] is amended to read as follows: "The bonds of this State indorsed and known as agricultural college bonds and constituting the capital of the agricultural college fund, with all funds heretofore and hereafter received from the United States under an act of Congress approved July 2, 1862, shall not be transferable except by special act of the general assembly, but shall remain in the custody of the commissioner of the school fund; and the treasurer and said commissioner are hereby authorized to invest any money now in their hands, or that may hereafter come into their hands, belonging to the principal of said fund, in any securities, except personal securities, in which by law the savings banks of the State may invest, and said commissioner shall semiannually receive and pay over the interest accruing from said fund to the treasurer of this State, who shall semiannually pay over the interest accruing from said fund, and also the amount received by virtue of an act of Congress approved August 30, 1890, to Yale University and to the board of trustees of the Storrs Agricultural College, in such proportions and for the purposes and on the conditions set forth in the succeeding sections; and the treasurer shall pay interest, at the rate of 5 per cent per annum, on the principal of such funds remaining in the treasury uninvested."

SEC. 5. The corporation of Yale University shall, upon the passage of this act, and semiannually thereafter, report under oath to the treasurer of the State the number of pupils in attendance at Sheffield Scientific School who had, previous to the passage of this act, been admitted as gratuitous pupils under the agreement between Yale College and the general assembly of this State, as approved by Governor Buckingham September 3, 1863, and thereupon the said treasurer shall pay over to Yale University a sum equal to twice the amount such pupils would be required to pay at the regular rates charged other pupils of the said school.

SEC. 6. After the passage of this act no further nominations or appointments of State pupils to the said Sheffield Scientific School shall be made, and no portion of the interest accruing from the said act of Congress, approved July 2, 1862, and

no part of the proceeds of the act of Congress of 1890 shall be paid over to said corporation of Yale University, except as provided in section 5 of this act, until said corporation shall contract in writing, in such form as the governor shall approve, to fulfill and perform all the duties and obligations imposed upon it by this act.

SEC. 7. After the passage of this act said corporation of Yale University shall furnish gratuitous education in such courses of instruction as, including the courses of instruction already instituted in said school, shall carry out the intent of the aforesaid act of Congress, approved July 2, 1862, in the manner especially prescribed by the fourth section of said act.

SEC. 8. Said corporation shall furnish gratuitous education in said courses of instruction to pupils who shall be annually nominated to be pupils of said school in the manner prescribed by law. The number of pupils to be so received gratuitously into said school shall be in each year such a number as would expend a sum equal to the interest on the proceeds of the aforesaid act of Congress approved July 2, 1862, for the same year, in paying for their instruction in said school if they were required to pay for it at the regular rates charged to other pupils of said school for the same year. Said pupils shall be citizens of this State, and shall be admitted into said school upon the same terms and subject to the same rules and discipline which shall apply to all other pupils of said school, with the single exception that they shall not be required to pay anything for their instruction.

SEC. 9. All the interest and funds arising from the said acts of Congress of 1862 and 1890 not paid over to Yale University by the provisions of this act shall by said State treasurer be paid over to the trustees of the Storrs Agricultural College for the use of said college in the manner heretofore provided by law.

SEC. 10. Should any question of damages, growing out of the provisions of this act, arise between the corporation of Yale University and the State of Connecticut, such question of damages shall be referred to three commissioners, one to be selected by the General Assembly of this State, one to be selected by the corporation of Yale University, and a third commissioner to be agreed upon by the two first mentioned, or, in case of their disagreement, the third commissioner shall, upon application thereto by the other commissioners, be appointed by the chief justice of the supreme court of errors of this State, and the decision of said commissioners, or of any two of them, in writing, shall be final, and their award shall, if in favor of Yale University, constitute a claim against the State. The comptroller is hereby authorized and directed to draw his order upon the treasurer in favor of Yale University for the amount of such award, which shall be paid from the sum appropriated for general purposes.

SEC. 11. The State of Connecticut hereby assents to and agrees that said moneys shall be expended in accordance with the provisions of said act.

SEC. 12. Said corporation of Yale University and the trustees of the Storrs Agricultural College shall annually make and distribute the reports called for by the aforesaid acts of Congress.

SEC. 13. All acts and parts of acts inconsistent herewith are hereby repealed.

[Yale University called for the constituting of the commission provided for in section 10 of the above act. The commission in January, 1896, rendered a decision awarding damages to Yale University to the amount of $154,604.45, equivalent to the entire fund received by the State of Connecticut under the act of July 2, 1862, together with the interest on that sum from the time of the legislative act of 1863 to the date of the decision of the commissioners. The income from the funds received under the act of July 2, 1862, as well as the entire funds granted to the State of Connecticut under the act of August 30, 1890, are now paid to the Connecticut Agricultural College.]

Public Acts 1893, Chapter CCXXVI: SECTION 1. The sum of $1,800 annually is hereby appropriated to the Storrs Agricultural College Experiment Station for the purpose of investigating the economy of the food and nutrition of man, and for investigations of the bacteria of milk, butter, and cheese, and their effect in the dairy, and the said sum shall be paid in equal quarterly installments to the treasurer of the Storrs Agricultural College Experiment Station, and the comptroller is hereby directed to draw his order for the same.

Public acts, 1899, chapter 169: SECTION 1. The name of the Storrs Agricultural College is hereby changed to that of the Connecticut Agricultural College, and said college shall, under said new name, have, own, and enjoy all property and rights of said Storrs Agricultural College, and shall be subject to all laws applicable to said Storrs Agricultural College, and the management of said college shall continue as at present until changed by proper authority. Whenever a library building shall be erected upon the grounds of said college such library shall be named the "Storrs Memorial Library," and shall bear that name conspicuously both exteriorly and interiorly.

SEC. 3. [Repealed by section 2, chapter 70, acts 1901.] There shall be a trustee of the Connecticut Agricultural College in addition to those now provided by law, who shall be elected for a term of four years * * * by and from the graduates of said institution, the election to be under the supervision of the trustees for the time being and to be so conducted that all graduates shall have an opportunity to vote therein by signed ballots deposited personally or by letter.

Public acts, 1895 [1899], Chapter CCXXXV, as amended by the act of 1899, chapter 22: The Connecticut Agricultural Experiment Station shall make analyses of food products on sale in Connecticut or kept in Connecticut for export, to be sold without the State, suspected of being adulterated. Samples of food products for analysis shall be taken by the duly authorized agents of the station or by the dairy commissioner or his deputy, at such times and places and to such an extent as in the judgment of the officers of said experiment station and of the dairy commissioner shall seem expedient. The dairy commissioner or his deputy shall have full access at all reasonable hours to any place wherein it is suspected that there is kept for sale or for export, as above specified, any article of food adulterated with any deleterious or foreign ingredient or ingredients, and said dairy commissioner or his deputy, upon tendering the market price of such article, may take from any person, firm, or corporation samples of the same. The said experiment station may adopt or fix standards of purity, quality, or strength, when such standards are not specified by law. Whenever said experiment station shall find by its analysis that adulterated food products have been on sale in the State, or kept in the State for export for sale without the State, it shall forthwith transmit the facts so found to the dairy commissioner, who shall make complaint to the proper prosecuting officer to the end that violators of the law relating to the adulteration of food products shall be prosecuted.

Public acts, 1899, chapter 147: Five thousand copies of the annual report of the State board of agriculture shall be printed at the expense of the State. The reports of the Connecticut Agricultural Experiment Station and the Storrs Agricultural Experiment Station shall be eliminated from the report of the State board of agriculture; 7,000 copies of the report of the Connecticut Agricultural Experiment Station and 7,000 copies of the report of the Storrs Agricultural Experiment Station, not to exceed 400 pages each or the equivalent thereof in paper, pages, and printing in the form of a smaller report and a series of popular bulletins, shall be printed at the expense of the State.

Public Acts, 1901, chapter 70: SECTION 1. There shall be a trustee of the Connecticut Agricultural College in addition to those now provided by law to be known as the alumni trustee, who shall be a graduate of the institution of at least five years' standing, and who shall be elected at the college during commencement week for a term of two years * * * by the graduates of said institution. The election shall be under the supervision of a canvassing board, to consist of three members, one appointed by the board of trustees, one by the alumni association of the college, and one to be selected by the two aforesaid, and to be so conducted that all graduates shall have opportunity to vote therein by signed ballots deposited personally or by letter.

SEC. 2. Section 3 of chapter 169, 1899, is hereby repealed. [This act taking its place.]

Public acts, 1901, chapter 175: SECTION 1. The board of control of the Connecticut Agricultural Experiment Station at New Haven shall designate and appoint a man qualified by scientific training and practical experience to be State forester during the pleasure of the board, and to be responsible to said board for the performance of his duties as prescribed in this act. The State forester shall have an office at the experiment station in New Haven, but shall receive no compensation other than his regular salary as a member of the station staff of deputies or aids, as may be necessary.

SEC. 2. The State forester is authorized to buy land in the State suitable for the growth of oak, pine, or chestnut lumber, at a price not exceeding $4 per acre, to the amount of the appropriation hereinafter named, which land shall be deeded to the State of Connecticut and shall be called a State park.

SEC. 3. The State forester is authorized to plant the lands so bought with seed or seedlings of oak, pine, and chestnut and such other trees as he may deem necessary or expedient, at a cost not exceeding $2.50 an acre; to exchange the land so bought with adjoining proprietors, if desirable, in order to make the State park more compact for fencing, and for and in behalf of the State to execute deeds for such purpose; to fence such lands with substantial wire fencing, not barbed, and to use proper precautions to protect said lands from forest fires, from trespassers, and the destruction of game, fish, and timber thereon, and in so doing may employ such local wardens or assistants as may be necessary.

SEC. 4. The State forester shall be the lawful custodian of such lands, with power to enter complaint against trespassers thereon, and shall pay, from the sum hereinafter appropriated, the town taxes upon said land when assessed at the same rate as similar adjoining lands, and with the approval of the governor and the attorney-general may sell portions of the same when they shall command a greater price than the cost and interest thereon, and may execute a deed for the sale for and in behalf of the State.

SEC. 5. The sum of $2,000 for the two fiscal years ending September 30, 1903, is hereby appropriated for carrying out the provisions of this act.

SEC. 6. The accounts of the forester for all disbursements under the provisions of this act shall be paid by the comptroller upon the audit of the State board of control.

DELAWARE.

[The following matter is taken from the Revised Statutes of the State of Delaware, published at Wilmington, 1893.]

Chapter XLIII (chap. 513, vol. 13, Laws of Delaware): Delaware College. SECTION 1. Delaware College at Newark, reincorporated by act of February 10, 1851, for a period of twenty years, is hereby recognized and reincorporated as a college for another period of twenty years, from and after the 10th day of February, A. D. 1871.

SEC. 2. The leading object of said college shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life.

SEC. 3. The board of trustees of said college shall consist of 30 members, together with the governor of the State and the president of the college, who shall be members ex officio, one-half of whom shall be appointed by the governor, who shall fill vacancies which may hereafter occur in their number, and the other half shall be appointed by the remaining members of the present board, who shall have power to fill vacancies occurring in their number; and the joint board so constituted shall have the entire control and management of the affairs of the college, with power to appoint and remove all subordinate officers and agents, and to make by-laws as well for their own government as that of the college.

SEC. 4. There shall be two stated meetings of the board every year at such time and place as may be fixed by the by-laws, and occasional meetings may be held on the call of the president, which he may make at discretion, and shall make on the written request of any two or more members of the board of trustees. The secretary of the board shall give two weeks' written notice of all meetings, and the time, place, and purpose of occasional meetings shall be stated in the notice thereof, and the proceedings of such meetings shall be confined strictly to the purpose stated therein.

SEC. 5. Nine members of the board shall constitute a quorum to do business, but a less number may adjourn. Officers may be appointed for the occasion in the absence of the regular officers. The place of a trustee who shall be absent from three successive stated meetings shall be vacated, unless the board shall otherwise especially direct, and a vacancy thus created shall be filled as in other cases. And a trustee appointed and not accepting at or before the next stated meeting shall be considered as declining, and a new appointment made.

SEC. 6. The trustees, as ascertained and limited by this act, shall continue to be a corporation by the name of the trustees of Delaware College, with all the powers and franchises incident to such an institution, including the capacity to take and hold real and personal estate, not exceeding in annual value $50,000, by deed, devise, bequest, gift, grant, or otherwise, and the same to alien, sell, transfer, or dispose of as occasion may require, and the proceeds thereof to be reinvested in other property, funds, or securities for the benefit of said college, and in accordance with the spirit and purpose of this act.

SEC. 7. The faculty, consisting of the professors and tutors employed by the board of trustees, one of whom shall be president of the college, shall have the care, control, government, and instruction of the students, subject, however, to the by-laws. They shall have authority, with the approbation of the board of trustees, to confer degrees and grant diplomas.

SEC. 8. The college fund, created by resolution of the general assembly of January 28, 1824, and transferred by act of February 5, 1833, to "the trustees of Newark College," and all other funds, stock, money, or property belonging to or appropriated for, or raised, paid, or payable to the trustees of Delaware College,

by that or any other name, shall be a part of the endowment of said college and shall be held, appropriated, and used as such by the said trustees.

SEC. 9. Devises, bequests, gifts, and grants to the corporation shall not be avoided by any misnomer if the description can be understood with reasonable certainty. And the corporation shall not be dissolved by nonuser so long as there shall remain seven trustees. The secretary of state shall transmit to the president of Delaware College, to be kept and placed in the library, a copy of all public documents of which he may receive duplicates, whenever the same shall not have been already appropriated. This college shall never be managed or conducted in the interest of any party, sect, or denomination, and the trustees of said college shall make a report of its condition to the legislature at each regular biennial session. (February 17, 1869.)

Chapter 48, volume 14, Laws of Delaware: SEC. 2. It shall not be lawful for any person, whether licensed to sell spirituous and fermented liquors or not, to sell, dispose of, barter, or give to, or be instrumental in procuring for any student of Delaware College, within 2 miles of the said college, any spirituous or fermented liquors or cordials of any kind in any quantity whatever, and any person violating the provisions of this section shall be liable to a fine of $25 for the first offense, and $50 for the second offense, and $100 for every subsequent offense, and shall be imprisoned until the said fines and costs shall be paid; the fines herein incurred to be collected as similar fines are now collected by law, one-half to be paid over to the informer and the other half to go to the constable or officer serving the warrant. (March 2, 1871.)

Chapter 408, volume 14, Laws of Delaware: SECTION 1. The treasurer of this State is hereby authorized and required to pay over to the treasurer of the board of trustees of Delaware College the sum of $3,000 per annum for the period of two years, in equal quarterly installments, the first installment to be paid on the 1st day of October, 1873: *Provided*, That whenever the college shall receive additional aid from the General Government this appropriation shall cease.

SEC. 2. In consideration of the appropriation herein made, the trustees of Delaware College shall provide free instruction of a suitable character for 10 students from each county of the State whenever such students, on presenting themselves for admission, shall obligate themselves to teach in the free schools of the State for not less than one year.

SEC. 3. Until otherwise provided by law, the appointments to the free scholarships herein established shall be made by the members of the legislature, each senator and representative being entitled to make one appointment. (March 27, 1873.)

Chapter 625, volume 18, Laws of Delaware: Delaware College, at Newark, Del., reincorporated by act of February 17, 1869, for a period of twenty years from February 10, 1871, be, and the same is hereby, reincorporated as a college, with the same duties, privileges, and prerogatives as now legally enjoyed and exercised by that institution for a further period of twenty years from and after the 10th day of February, 1889. (February 21, 1889.)

Chapter 137, volume 13, Laws of Delaware [see law of February 17, 1869, the first of this collection]: Whereas the legislature of this State by a recent act accepted the provisions of an act of Congress approved July 2, 1862; and whereas the said act of Congress renders it the duty of the State to provide the buildings, grounds, and appliances necessary to carry out the objects of said act; and whereas the board of trustees of Delaware College have proposed to convey to the State of Delaware a joint and equal interest in the grounds, buildings, libraries, apparatus, and vested fund of said college property, upon the condition that the State shall vest the income to be derived from the sale of the said lands in a board of trustees, not more than one-half of whom shall be the representatives of the State, and the remainder the representatives of the present board, for the purpose of establishing at Newark, in connection with said college, an institution which shall meet the requirements of the act of Congress and extend to the people of our State the benefits of its provisions:

SECTION 1. The proposition of the board of trustees of Delaware College is hereby accepted and Delaware College is adopted and established as the institution to be provided by the State of Delaware in accordance with the provisions of the act of Congress approved July 2, 1862.

SEC. 2. The State treasurer, in conjunction with the governor of the State and the president of the board of trustees of Delaware College, is hereby authorized and required to sell and assign, upon such terms and conditions as they may deem best for the interest of the State of Delaware, the whole or any part of the scrip or land warrants issued or to be issued to the State by virtue of said act of Congress.

SEC. 3. The proceeds of the sale or sales aforesaid shall be invested by the said treasurer in interest-bearing bonds of this State or of the United States, at his discretion, the principal of which bonds shall be forever held sacred for the purposes contemplated in the act of Congress aforesaid, and shall not be transferable except by a special act of the legislature.

SEC. 4. The State treasurer may perform and discharge any of the acts, trusts, or duties authorized, directed, or conferred herein by any agent or agents by him selected and appointed, and with the consent and advice of the governor of the State. All costs and expenses incurred in selling or assigning the said land scrip, or investing the proceeds thereof, shall be allowed and paid out of any funds in the State treasury not otherwise appropriated.

SEC. 5. The State treasurer shall, semiannually, receive and pay over the interest of said bonds to the treasurer of the board of trustees of Delaware College for the purposes and on the conditions hereinafter mentioned.

SEC. 6. The board of trustees of Delaware College shall devote said interest to the maintenance of such course or courses of instruction in said college as shall carry out the intent of the act of Congress aforesaid, and shall provide for the gratuitous instruction of one pupil from each hundred in the State, who shall be annually nominated to be pupils of said college in such manner as the legislature may prescribe. Said pupils, so nominated and received, shall be residents of this State, and shall be admitted into said college upon the same terms and subject to the same rules and discipline which shall apply to all other pupils of said college, with the single exception that they shall not be required to pay anything for their instruction.

SEC. 7. Said board of trustees shall, annually, on or before the 1st day of February in each and every year, make up and distribute the reports required by the fourth paragraph of the fifth section of the said act of Congress.

SEC. 8. The governor is hereby authorized to appoint five trustees from each county of the State to be members of the board of trustees of Delaware College on behalf of the State, and to fill all vacancies which may arise in such appointments, occasioned by death, resignation, or otherwise, and that the present board of trustees of Delaware College shall fill up the remaining vacancies in said board in the manner and to the number prescribed in the charter of Delaware College, as well as to fill any vacancies which may hereafter arise in their number, and the joint board of trustees thus reorganized shall have the entire control and management of said institution, subject to the provisions of its charter and the terms of the act: *Provided*, That said institution shall never be managed or conducted in the interests of any party, sect, or denomination.

SEC. 9. The board of trustees of Delaware College shall report such amendments to this act, or such further acts or laws, as they may deem necessary and proper to carry out the objects contemplated by this act. (March 14, 1867.)

Chapter 420, volume 13, Laws of Delaware: SECTION 1. The number of students from each county shall not exceed [ten from each county]. Each hundred in each county shall have an equal number of the appointees to the college established by the act passed March 14, 1867 [above], and in making the nominations of the pupils under the act aforesaid hereafter, the hundred as herein named shall always be construed to mean such territory as was embraced within the limits of the respective hundreds in each county at the time the counties were each embraced within limits of ten hundreds only.

SEC. 2. They shall be nominated in this manner: Each member of the general assembly for the time being, whether during a session or in vacation, as occasion may require, shall nominate the students to which his or their hundred shall be entitled, and nominations from hundreds within the meaning of this act shall be made whenever a vacancy occurs in a hundred by nonacceptance, death, or otherwise. When there are two or more members of the general assembly from one hundred, they shall decide who shall nominate from the hundred or hundreds, within the meaning of this act, having no resident member, together with the hundred where they may reside, by writing the names of the hundreds on separate paper and drawing as by lot; the hundred which a member may so draw, the same shall be his, so drawing, to nominate therefrom during his term.

SEC. 3. No person shall be nominated on the part of the State as a student of Delaware College who is under the age of 16 years or over 21. (March 15, 1869.)

Chapter 55, volume 14, Laws of Delaware: SECTION 1. A. B., late State treasurer and trustee of the funds arising from the sale of the land scrip mentioned in the act (March 14, 1867) to which this is a supplement, is hereby directed to transfer and deliver to the State treasurer all the funds, bonds, and other securities, as well as any scrip yet in his hands or under his control, if any, taking his receipt

therefor; and the State treasurer shall, when received by him, hold and be accountable for them in his official capacity.

SEC. 2. It shall be the duty of the State treasurer, in addition to the other duties imposed by the act to which this is a supplement, to keep said funds, bonds, and other securities and scrip in the Farmers' Bank, at Dover, and to keep a separate and distinct account of said trust funds, and to make a full and detailed report of the condition thereof to the trustees of Delaware College on the 1st day of July in each year, and also to the legislature at each biennial session. (March 30, 1871.)

Chapter 119, volume 19, Laws of Delaware:

SECTION 1. The governor of the State, on the first Tuesday in June, 1891, and every four years thereafter, shall appoint and commission two respectable and well-qualified persons from each county, who shall constitute the board of trustees for the [State] College for Colored Students. The said trustees shall hold their office for a period of four years or until their successors shall in like manner be appointed. In case of a vacancy by death, resignation, or otherwise, the governor shall appoint for the unexpired term.

SEC. 2. The trustees named in this act are hereby ordained and declared to be a body corporate by the name and style of "The Trustees of [the State] College for Colored Students," with all the powers and franchises incident to such an institution, including the capacity to take and hold real and personal estate by deed, devise, bequest, gift, grant, or otherwise, and the same to alien, sell, transfer, and dispose of as occasion may require, and the proceeds thereof to be reinvested in other property, funds, or securities for the benefit of said college, and in accordance with the spirit and purpose of this act.

SEC. 3. The purpose and object of said college shall be to impart instruction in agriculture, the mechanic arts, the English language, the various branches of mathematical, physical, natural and economic science, with special reference to their application in the industries of life, and to the facilities for such instruction, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life, but other scientific and classical studies may be taught, and a normal school for the preparation of teachers may be connected with the college under such rules and regulations as the trustees may adopt.

SEC. 4. The said board of trustees shall have the superintendence of said college, with power to appoint and remove the faculty and other officers and agents of the college and of their own body; to fill vacancies and to make by-laws as well for the government of the college as their own government, and to conduct all the concerns of the institution. [Four] members of the board shall constitute a quorum, and meetings of the board shall be held as the by-laws may prescribe: *Provided*, That said by-laws shall not conflict with the constitution or laws of the United States or of this State.

SEC. 5. The faculty of the college, composed of the teachers whom the trustees shall employ, one of whom shall be president of the college and ex officio member of the board of trustees, shall have the care, government, and instruction of the students, subject, however, to the by-laws. They shall have authority, with the approbation of the board of trustees, to confer degrees and grant diplomas.

SEC. 6. Devises, bequests, grants, and gifts to this corporation shall not be avoided by any misnomer, if the description can be understood with reasonable certainty.

SEC. 7. The sum of $8,000 is hereby appropriated from the State treasury to the said "The Trustees of the State College for Colored Students," to be used primarily for the purchase of land and for the erection, preservation, repair, and equipment of any building or buildings which said trustees shall hereafter acquire for the purposes of said college, and if the whole of said sum should not be required for the purchase of land and for the erection, preservation, or repair of buildings, the remainder of said sum shall be used for the maintenance and support of said institution. Said sum shall be paid by the State treasurer to the treasurer of said trustees, upon his giving bond and security as hereinafter provided after notice received under the hand of the president and secretary of the said trustees that said body is fully organized and prepared to carry out the purposes of this act.

SEC. 8. The State treasurer is hereby directed and required to pay annually to the treasurer of the said "Trustees of the State College for Colored Students" 20 per cent or one-fifth part of the sum of money which he, the said State treasurer, has already received and hereafter shall receive annually by virtue of an act of Congress approved August 30, 1890, entitled [etc.].

SEC. 9. The moneys received by said trustees as provided in the foregoing section shall be used by said trustees for the support and maintenance of said college,

and the treasurer of said trustees, before receiving any money from said State treasurer, shall give bond with good and sufficient security to the State of Delaware in the sum of $10,000, conditioned for the faithful application of all the moneys received. Said bond shall be approved by said trustees and shall be deposited in the office of the secretary of state. (May 15, 1891.)

Chapter 438, volume 17, Laws of Delaware:

SECTION 1. The person occupying the chair of chemistry in Delaware College, at Newark, Del., is hereby declared ex-officio State chemist.

SEC. 2. It shall be the duty of the State chemist annually to analyze samples of all fertilizers which may be offered for sale within this State, and for this purpose he is authorized and directed to take from not less than five original packages of said fertilizers which may be in the possession of any manufacturer, dealer, or persons using the same, two samples not exceeding one pound in weight, one sample to be retained by the State chemist, and the other sample to be sent by the State chemist, in a sealed bottle or can, to the secretary of state, who shall keep the same; and in case any manufacturer should request another analysis, then the sample retained by the secretary of state, at the request of any manufacturer, shall be sent to any chemist which the secretary of state, State chemist, and manufacturer shall agree upon.

SEC. 3. Every bag, barrel, or other package of commercial fertilizer manufactured or sold in this State shall have plainly stamped thereon the number of net pounds of fertilizer in the package, the name, brand, or trade-mark under which the fertilizer is sold, the name and address of the manufacturer, the place of manufacture, and the chemical analysis, stating the percentage of ammonia, of potash soluble in water, of available phosphoric acid, and of insoluble phosphoric acid; and any manufacturer or dealer who shall misrepresent the proportion of ammonia, phosphoric acid and potash, or either of them, contained in such fertilizer, shall be guilty of a misdemeanor, and upon conviction thereof on indictment shall be fined $200 for the first offense and $300 for each subsequent offense.

SEC. 13. In case the State chemist willfully makes any false or untrue analysis he shall be deemed guilty of a common nuisance, and upon conviction thereof shall be fined a sum not exceeding $100, and shall stand committed to the custody of the sheriff until said fine is paid. (April 16, 1885.)

Chapter 240, volume 21, Laws of Delaware: Whereas the great advance in medical science has reached a point of exactitude heretofore unknown, more especially as to the cause and prevention of disease, and has attained the ability of demonstrating to a certainty the bacteriological origin of many of our most prevalent and fatal diseases; and whereas by microscopic and biological investigation the presence of these diseases can be made manifest when symptomatology fails, thus enabling the boards of health to make timely provision against the spread of the disease, and by so doing save the health and life of many citizens; and whereas these investigations can only be safely made in a laboratory fully and properly equipped for the purpose, and managed by skilled manipulators of special knowledge and experience in the sciences of pathology and bacteriology; and whereas Delaware College possesses excellent facilities in the way of suitable rooms and adequate equipment of libraries and apparatus, and besides offers at no cost the supervision of a trained bacteriologist as a guaranty of the character of the work; and whereas a similar line of work as regards domestic animals is carried on at the college under the provisions of the Hatch bill, none of which provisions could be used for the purposes contemplated in this act: Therefore,

SECTION 1. In addition to the duties and powers with which the board of health of the State of Delaware is now invested by the constitution and laws of this State, it is hereby empowered to establish and supervise a pathological and bacteriological laboratory at Delaware College, and to supplement the equipment already there with any additional appliances necessary to make it perfectly safe and reliable for the thorough use of any or all of these means of protecting the citizens of the State against the spread of disease.

SEC. 2. The said laboratory shall, by and with the advice and consent of the board of trustees of Delaware College, be located in buildings now belonging to said college, and said board of trustees shall furnish such accommodation of rooms, apparatus, and skilled supervision as may be required for said laboratory.

SEC. 3. The pathologists and bacteriologists, elected as hereinafter provided, shall conduct the routine work of said laboratory under the direction and supervision of the bacteriologist of Delaware College, and shall make all examinations and analyses, etc., that may be necessary, under the direction of the board of health of the State, for all the purposes that may be required to fully execute the intents of this act: *Provided, however*, That this shall not be so construed as to

interrupt or limit the power in the full control and management of the laboratory of the State board of health.

SEC. 4. All physicians, dentists, veterinary surgeons, or others practicing medicine or surgery or any branch thereof under the laws of this State shall be required to give prompt notice to the local or State board of health of any and all cases of contagious or infectious disease that may come under their professional notice, and shall have free access to the work of the laboratory for the determination of the diagnosis of any doubtful or suspicious case by forwarding (prepaid) a sufficient sample of urine, blood, sputum, or other substance of such case to the said pathologist and bacteriologist at Newark for examination, who shall examine the substance so sent and report to the physician, dentist, or others aforesaid sending the same the results of said examination without any unnecessary delay and without further charge; the said physician, dentist, or others aforesaid shall report the result immediately as herein above required: *Provided, however*, That nothing in the act shall be so construed as to prevent the board of health of the State from making full provision for the free use of the laboratory for the examination of any matter or substance so as to determine the diagnosis of diseases neither contagious nor infectious, and either local or constitutional, and for the examination of water or food supply for any citizen of the State.

SEC. 5. The regular annual meeting of the board of health of the State shall be held at Newark, * * * at which meeting the pathologist and bacteriologist shall be elected annually by the action of the said board of health.

SEC. 6. The sum of $2,500 annually shall be appropriated for the salary of the bacteriologist and all other expenses of the said laboratory, and the same is hereby appropriated out of any funds in the hands of the State treasurer not otherwise appropriated, and the annual expenses of the same thereafter. The said appropriations hereby made to be drawn by orders on the State treasurer, signed by the president and secretary of the State board of health, the accounts to be audited by the auditor of accounts of the State annually, as now required for the other accounts of the State board of health.

SEC. 7. This act shall be deemed and taken to be a public act, and shall go into effect immediately on its passage.

SEC. 8. It is hereby made the duty of the said pathologist and bacteriologist, whenever requested by the attorney-general, to make any and all examinations of any person or persons, or any organ or organs, or any part or parts of any person or persons, with the view of determining the cause or causes of death, and make a prompt report, without charge to the State or any county thereof.

(March 23, 1899, as amended by chapter 135, volume 22, laws of Delaware, February 25, 1901.)

Chapter 213, volume 21, Laws of Delaware:

SECTION 1. The State chemist is hereby required, when any person or persons purchasing any fertilizer sold in this State and composed of one or several ingredients from any manufacturer or vendors for their own use, and who themselves, the purchasers, are citizens of this State, submit to said State chemist fair samples of any such fertilizer for analysis in the manner prescribed in section 6, chapter 438, volume 17, Laws of Delaware, to make any and all such analyses for the sum of $1, to be paid by said purchaser.

SEC. 2. The provision that said State chemist shall receive the sum of $1 only when he makes analyses mentioned in section 1 of this act shall not be construed to mean that said State chemist is to be paid $1 for each ingredient in any fertilizer mentioned in section 1 of this act and so analyzed by him.

FLORIDA.

[The following matter is taken from the "Revised Statutes of Florida, prepared by W. A. Blount, C. M. Cooper, L. C. Massey, commissioners," Jacksonville, 1892.]

SEC. 278. The Florida Agricultural College is established.

SEC. 279. The design of this institution is to teach such branches of learning as are related to agriculture and mechanic arts, without excluding other scientific and classical studies, and including military tactics, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life.

SEC. 280. [Amended by section 4233.] The superintendent of public instruction, commissioner of agriculture, and the State treasurer by virtue of their said offices, and the other persons who are now members and trustees of this corporation, and their successors, are a body corporate and politic, by the name of the Florida

Agricultural College, with the general powers of a corporation for said purposes, including the right of perpetual succession and to have a corporate seal.

[In State v. Knowles et al. (holding themselves to be a body corporate), the court said (16 Fla., p. 616): "The next general proposition as to this statute is that it impairs the obligation of contract. The statute changes the trustees of this college. It substitutes the trustees named in the act of 1877 for those named in the act of 1872, as the act of 1872 substituted those named in it for those mentioned in the act of 1870. The ground upon which this view is based is that this is a private not a public corporation. The corporation is itself founded by the State through property derived from the Government of the United States. These trustees are made by this legislation the agents of the State to collect and disburse property appropriated by the General Government to the State for a public purpose. There is not and never was any private property in the funds. They were derived from the government. The founder of this institution was the government of the State of Florida and the property which constituted its basis was public moneys of the State of Florida derived by it from the Government of the United States in trust for the establishment of an institution of this character. It never was the purpose of the State of Florida to give these trustees any private right to this property. Throughout the whole legislation they are shown to be simply public agents to manage a public property. The only right they have to it is by the legislation of the State, and every section of these acts shows that it was founded by public funds, and for a public purpose. (4 Wheaton, 5 Stewart & Porter.)[a] It may be true that any legislation of the State appropriating these funds to any other purpose than that purpose named in the act of Congress might have been in bad faith, but that is a matter which does not concern these trustees, nor does this fact change the nature of the institution. It is insisted that the obligation of a contract with W. H. Gleason [whose offer of 2,000 acres of land had been accepted] is impaired by the act of 1877, in that it directs a removal of the college. This question is entirely independent of the question raised in this case, which is the right of the trustees to hold and exercise a public trust against the provisions of a statute naming other persons trustees in their stead. Because they have made a contract with some one else can not extend their powers or rights. The question whether a city or town has made a contract with A, B, or C is entirely distinct from the question whether the legislature may not change the affairs of a public municipal corporation. What has been said disposes of the further objection on the ground that these respondents are deprived of their property without due process of law. Holding their franchises subject to legislative action, legislation depriving them of them is due process of law."]

SEC. 281. [Amended by section 4233, section 2, post.] The superintendent of public instruction and the said State treasurer shall by virtue of their offices as such be president and treasurer of said board of trustees of said college, and the said board shall elect a vice-president, secretary, and executive committee, which committee shall consist of five members. Said executive committee is empowered to act in behalf and under directions of the board between the regular meetings of the same, and determine all the matters relating to officers or committees and make all needful rules and regulations for the management of the affairs of the board.

SEC. 282. The treasurer herein appointed shall receive and, if necessary, demand and sue for in his own name as treasurer all property and debts belonging to said board.

SEC. 283. The said corporation shall have power to build and construct a college building and such other buildings and outbuildings as they may deem necessary, to contract and be contracted with, to sue and be sued, plead and be impleaded in all courts of law and equity, to receive donations and make purchases of lands, and to sell and convey the same.

SEC. 284. [Repealed. See section 3 of section 4233, post.] Said trustees shall have power to remove any member from said corporation when, by continued neglect, he fails to perform his duties, or when by reason of age or infirmity he shall have become permanently incapable of performing them. They shall also fill by election any vacancy that may occur in their board, subject to the approval of the judges of the supreme court.

SEC. 285. The trustees shall receive no compensation for their services while attending any of the meetings of the board, but may be allowed their necessary expenses while going to, from, and attending such meetings.

SEC. 286. Said trustees are hereby authorized to claim and receive from the Secretary of the Interior the agricultural college land scrip to which this State is entitled by act of Congress July 2, 1862, and acts supplemental thereto. Said scrip is hereby transferred and assigned to and vested in the trustees of the Florida Agricultural College and their successors and assigns forever. They shall, when in their judgment it will best promote the object for which they are chosen, sell and assign the scrip, or locate and thereafter transfer and convey the lands, and use the proceeds as herein directed.

SEC. 287. Ten per cent of the proceeds of the sales of the scrip or of the lands may be expended for the purchase of a site for an experimental farm. The remainder of the proceeds shall be invested in the stocks of the United States or

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[a] The first of these, of course, refers to the Dartmouth College cases, the second to the Alabama case (1833), Trustees of University v. Winston. "The trustees of the University of Alabama compose a public corporation entirely within the control of the legislature, and the latter has authority, by the passage of any statute or statutes, to alter, amend, vary, or enlarge the original acts of incorporation."

of some of the States of this Union, bearing an annual interest of not less than 6 per cent on their par value, and shall remain a permanent fund forever. The annual interest of the fund shall be regularly applied, without diminution, to the purposes set forth in section 279. Donations may be received for specific purposes, and shall be applied to the objects for which they were granted.

SEC. 288. No portion of the principal or interest of the fund shall be applied, directly or indirectly, under any pretense whatever, to the purchase, erection, preservation, or repairs of any building or buildings, or for expenses incurred in selling the scrip, locating the lands, or in managing the funds of the lands. No scrip, lands, or property of whatever kind that may be obtained and held by said corporation under this chapter, whether of buildings, grounds, farms, workshops, fixtures, machinery, apparatus, cabinets, library, furniture, or other valuables, shall be encumbered, aliened, or otherwise disposed of by the said trustees, or by any other person or persons, contrary to the provisions of this chapter, except on such terms as the legislature shall have previously approved, and any act of said trustees or any other person or persons which shall have or be intended to have such effect shall be void.

SEC. 289. The college shall remain at its present location unless the same be changed by statute.

SEC. 290. The indebtedness of the State to the agricultural-college fund and the evidences of such indebtedness remain as heretofore provided by law.

SEC. 291. The board of trustees shall choose a president of the college and such professors, teachers, superintendents, and employees as the necessity of the institution may demand. They shall fix their compensation, define their duties, limit their powers and the duration of their terms of office; also make all general provisions for the management of the college in its several departments. They may limit the number of students and confer appropriate degrees.

SEC. 292. The president, professors, and superintendents of said college, and the secretary of the board of trustees, shall constitute the faculty of the college.

SEC. 293. The faculty shall have the immediate charge and management of the college and farm; shall determine the basis of admission, the length of complete and partial courses of study, the studies to be pursued, and the text-books to be used; also the daily hours for labor and of attendance upon the exercises of the institution. They shall likewise make all needful rules and regulations for the government and discipline of the students, and for promoting in the highest degree their morals, health, decorum, and scholastic advancement; all of which shall be subject to revision, alteration, or rejection by the board of trustees.

SEC. 294. The several departments of the college shall be open to applicants for admission at the lowest rate of expense consistent with the welfare and efficiency thereof, as herein provided, and without further distinction as to class or locality, to wit: Each county shall be entitled to send annually, or so often as vacancies may occur, one student for each member of the assembly from that county; such students shall be selected by the boards of public instruction of the several counties from among the most advanced pupils in the common and higher schools therein who may present themselves as candidates. Each county board of public instruction shall annually, or as often as vacancies occur which should be filled by the county, give early notice of such vacancy, and of the time and place of meeting for the examination of the candidates. The county board shall then and there, by themselves, or with the assistance of such persons as they may appoint, examine such candidates and select those best qualified as to scholastic attainments, good health, and upright moral character, and furnish them with certificates of selection for admission, subject to the reexamination and approval of the faculty of the college. In case any board of instruction fails to attend to the above duty, then pupils holding high rank in their schools in that county may make application in person to the faculty of the college and be examined and admitted on the same terms as they would have been had they passed a preliminary examination before the board of instruction of their county. But in case such vacancies remain unfilled students may be selected from the State at large by the faculty.

SEC. 295. Each senator during his term of office shall be empowered to nominate one student, who shall be a resident of his senatorial district, to said State Agricultural College, who shall be entitled to receive the benefit of a full course of instruction at said college without any charge for tuition, subject to such rules and regulations as may be established for the government and direction of said college.

SEC. 296. The comptroller is authorized to make examinations from time to time, as he may see fit, into the actions and doings of said trustees, to the end that he may ascertain whether the funds committed to them are and have been

managed according to the letter and intent of this chapter. Said trustees shall report to the comptroller annually on the 1st day of October, in such form as the comptroller may direct, the amount of land or land scrip sold, the price and terms of sale, the amount of money received therefor, the disposition made thereof, and the expense incurred in the sale.

SEC. 297. The trustees shall make an annual report to the superintendent of public instruction on or before the 1st day of October, to be by him printed with his report and laid before the legislature at the beginning of each regular session. Such report shall give a full exposition of the financial condition of the corporation, the progress and improvements made, the nature, cost, and results of experiments, and such other matters, including State industrial and economical statistics, as may be supposed useful; one copy of which the superintendent shall transmit by mail to each of the other colleges which were endowed under the provisions of the act of Congress of July 2, 1862; also a copy to the Secretary of the Interior, and one to each House of Congress.

SEC. 298. The legislature may add other departments of learning to this college when the endowment of such departments shall have been provided for.

SEC. 299. The justices of the supreme court shall constitute an examining committee, with power to investigate the affairs of the college and the corporation, and to appoint proxies to act in their stead.

SEC. 300. The legislative assent of the State of Florida is hereby given to the act of Congress entitled "An act to establish agricultural experiment stations in connection with the colleges established in the several States under the provisions of an act approved July 2, 1862, and of the acts supplementary thereto," and to the grants of money authorized by said act, and to the purpose of said grant.

SEC. 4233 (Acts and Resolutions, 1893). SECTION 1. Section 280 of the revised statutes of the State of Florida is hereby amended so as to read as follows: "Sec. 280. The Florida Agricultural College shall be under the direction of a board of seven trustees, who shall be appointed by the governor by and with the consent of the senate, not more than two of whom shall be residents of the town or county in which the college is located, and who shall hold their office for four years."

SEC. 2. Section 281 of the revised statutes of the State of Florida is hereby amended so as to read as follows: "Sec. 281. The members of said board of trustees shall annually elect from their number a president and a secretary. The State treasurer shall, by virtue of his office, be the treasurer of said board; and said board shall elect a vice-president and executive committee, which committee shall consist of three members. Said executive committee is empowered to act in behalf and under the direction of the board between the regular meetings of the board, and determine all the matters relating to officers or committees, and make all needful rules and regulations for the management of the affairs of the board of trustees."

SEC. 3. Section 284 of the revised statutes is hereby repealed.

SEC. 4234 (Ibid.). SECTION 1. There shall be established at some suitable point in Florida possessing climate conditions for growing all kinds of plant life, including cinchons, logwood, and camphor, olive and india rubber trees, also vanilla, tea, coffee, jute, New Zealand flax, etc., on muck lands over which the trustees of the Internal Improvement Fund have exclusive control under the act of Congress of September 28, 1850, an experimental station, to be operated by or under the supervision of the commissioner of agriculture, and under such rules, regulations, and conditions as may be prescribed by the trustees of the Internal Improvement Fund of the State of Florida.

SEC. 2. For the purpose of carrying out the provisions of section 1 of this act and to create a fund for the establishment and maintenance of said agricultural station, and for the further drainage and reclamation of the lands set apart for that purpose, the trustees of the Internal Improvement Fund of the State of Florida are hereby authorized and directed to set apart 100,000 acres of the land granted the State of Florida by the act of Congress of September 28, 1850, to be sold at such prices as may be fixed by the trustees and the proceeds thereof to be expended by the said trustees of the Internal Improvement Fund in carrying out the provisions of section 1 of this act.

SEC. 269. A normal school[a] for colored teachers is established at Tallahassee, Leon County, similar in all respects as prescribed for the establishment of the normal school for white teachers, and subject to the direction and control of the State board of education.

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[a] The funds granted to the State of Florida under an act of Congress approved August 30, 1890, are divided equally between this institution and the Florida Agricultural College.

GEORGIA.

Constitution (1877), section 6, paragraph 1: The trustees of the University of Georgia may accept bequests, donations, and grants of land or other property for the use of said university. In addition to the payment of the annual interest on the debt due by the State to the university, the general assembly may, from time to time, make such donations thereto as the condition of the treasury will authorize. And the general assembly may also, from time to time, make such appropriation of money as the condition of the treasury will authorize, to any college or university (not exceeding one in number) now established or hereafter to be established in this State for the education of persons of color.

[The following matter is taken from "The code of Georgia, prepared by John L. Hopkins, Clifford Anderson, and Joseph R. Lamar," Atlanta, Ga., 1896.]

SEC. 1271. The government of the University of Georgia, at Athens, is vested in a board of trustees, who are subject to the general assembly.

SEC. 1272. For such purpose they are a body corporate and politic, by the name of the "trustees of the University of Georgia," by which they shall have a perpetual succession, have and use a common seal, and be a person in law able to plead and be impleaded, to hold and acquire real and personal estate, with power to lease and otherwise manage the same for the good of the university. All money or property granted by the State, or individuals, for the advancement of learning in general is vested in such trustees.

SEC. 1273. The board of trustees of the University of Georgia shall be composed of one member from each Congressional district, four from the State at large, two from the city of Athens, and the chairman ex officio of the local board of trustees of the Technological School, all of whom, except the latter, shall be appointed by the governor and confirmed by the senate, under the rules governing the appointment and confirmation of other officers of this State required by law to be confirmed by the senate.

SEC. 1274. The term of office of said trustees shall be eight years and until their successors are appointed, confirmed, and qualified. The first appointments shall be made by the governor before the 1st day of September, 1889, and confirmed by the senate. Four of them shall be appointed for two years, four for four years, and four for six years, and four for eight years, and as the terms of these appointees expire their successors shall be appointed and confirmed biennially thereafter for a full term of eight years. There shall be two trustees from the city of Athens, exclusive of one from the Congressional district in which said city may be located.

SEC. 1275. Persons to be eligible to the office of trustee shall be citizens of this State; shall be residents of the districts from which they are appointed; shall be at least 25 years of age, and shall not be a trustee of any other male college or university, excluding branch colleges of the university and high schools or academies, and shall be chosen with special reference to their fitness and capacity to exercise the duties of trustee. The governor shall be ex officio a member of the board of trustees and shall attend its meetings when possible, and is entitled to all the privileges of a member of the board.

SEC. 1276. In case of the death or resignation of any member of the board, the governor shall fill such unexpired term in the manner above provided, such appointment to be confirmed by the senate at the session after the same is made.

SEC. 1277. The board of trustees shall elect one of their number as their presiding officer, who shall be called the chairman of the board of trustees. The board may meet subject to their own order, but they must assemble in annual session in the city of Athens on the Thursday preceding the Sunday of the commencements of the university. They may establish such rules and regulations for their own direction as they deem proper; may fix the terms of the office of their chairman and secretary; and are vested with all the powers, privileges, and rights vested in the former board of trustees, and are charged with all the duties, obligations, and responsibilities incumbent on the same.

SEC. 1278. It shall be the duty of the members of the board of trustees of said institution to attend the meetings of the board, so as to take part in its deliberations; and whenever any trustee shall be engaged, at the time prescribed for the annual meeting of the trustees, as counsel or party in any case pending in the courts of this State, and such case shall be called for trial during the regular sessions of said board, his absence to attend such session shall be good ground for postponement or continuance of the case till the session of the board shall have come to an end.

SEC. 1279. The office of any member of the board of trustees shall be vacated if he neglects to furnish good and satisfactory excuse, in writing, to the board for

absence from two consecutive meetings thereof; and if any member for any cause fails to attend three successive meetings of the board, his office shall be declared vacant by the board, and the secretary shall in either event notify the governor of a vacancy in the board, and the governor shall fill the same as above provided for.

SEC. 1280. The members of the board shall each receive (for the payment of expenses actually incurred by them) the sum of $4 for each day of actual attendance at the meetings and mileage in actual fare to and from the place of meeting by the nearest practicable route from their respective homes, said expenses and mileage to be paid by the State treasurer out of the funds of the State by executive warrant, on presentation of vouchers of the members approved by the chairman and signed by the secretary of the board. The members of said board shall receive no emolument or compensation for their services as such members.

SEC. 1281. The board of trustees shall submit to the general assembly, through the governor, biennial reports of their transactions, together with such information as is necessary to show the condition of the university, with such suggestions as it may think conducive to the good of the university and the cause of education in the State.

SEC. 1282. In prescribing the course of study to be followed in said university it shall be the duty of the trustees, in so far as the same can be done without detriment to other departments, to encourage and promote by the disposition of the time and attention of the students the regular course of bachelor of arts, in order that said course shall not be subordinated to any other course in the institution.

SEC. 1283. The board of trustees shall, in their discretion, ordain and establish such rules and measures as will, in their judgment, tend to secure the efficiency and promote the success of the two literary debating societies in said institution, and to the encouragement of oratory and composition among the students attending the exercises in these societies.

SEC. 1284. The trustees have power: 1. To elect their own officers, such as chairman, vice-chairman, secretary, treasurer, or such of them as they may require, and also all other officers they may deem necessary for their organization. 2. To elect a presiding officer of said university, who shall be styled the "chancellor of the University of Georgia," and in case of a vacancy in his office, unsupplied, to create such office and make such arrangement for the conduct of the institution as to them shall seem fit. 3. To elect or appoint professors, tutors, stewards, or any other officer necessary; to discontinue or remove them as the good of the university may require, and fix their salaries. 4. To prescribe the course of studies to be pursued by the students, the terms and manner of graduating, and of conferring all the degrees. 5. To establish all such schools of learning or art as may be useful to the State, and to organize the same in the way most likely to attain the ends desired. 6. To call on all persons who may have, or have had, any funds, property, papers, or books belonging to the university, to deliver them up and make settlements. 7. To adjust and determine the expenses of the institution. 8. To exercise any power usually granted to such incorporations necessary to its usefulness, and not in conflict with the constitution and laws.

SEC. 1285. The chairman of the board and two of its members may appoint a meeting at any time by giving to the others at least ten days' notice, by letter or otherwise. When the chairman does not act the senior trustee present shall preside, and in all other respects discharge his duties; when the board is divided the presiding officer shall give the casting vote, or may vote to make a tie. A majority of the body present shall govern, if a quorum. Nothing done at a special meeting shall be binding after the rising of the next annual meeting, unless then confirmed.

SEC. 1286. Such trustees shall never dispose of the stock by them subscribed for, except with the consent of the general assembly, but the dividends therefrom may be drawn and used as the various demands of the university may require.

SEC. 1287. The governor shall annually appoint five experienced educators, citizens of the State, as a special board of visitors to attend the examinations at the University of Georgia, preceding the annual commencement, to examine personally into the condition and management of said institution. Said visitors, or a majority of them, shall submit their report in writing as soon thereafter as possible to the governor, in which they shall report upon the character of the examinations aforesaid, the condition and management of said institution, together with such suggestions and recommendations thereon as they may deem proper. Said reports shall be laid before the general assembly by the governor.

SEC. 1288. A majority of said board shall constitute a quorum. Such visitors shall receive, as compensation for their services, $4 per diem, estimating from the

date of leaving their homes, and mileage each way by the nearest practicable route to Athens at the rate of 3 cents per mile. The whole service of said board shall not exceed ten days.

SEC. 1289. The board of visitors for the University of Georgia shall complete the report required of them and lay the same before the trustees of said institution on or before the Saturday preceding the annual commencement day of said institution. The said board of visitors shall also, at the same time, present to the trustees, in writing, any matter of importance coming to their knowledge during their examination of the institution which, in their opinion, is material to the welfare, good management, and success of the same, making such suggestions touching the matter as may seem to the said board of visitors meet and proper: *Provided, however*, That the making of the report herein provided for shall not take the place of the report now required to be made to the governor under existing laws.

SEC. 1290. The board of trustees of the University of Georgia shall give to said report and the matter accompanying the same due and careful consideration, and in their discretion take final action on such matters as may be therein embraced looking to the welfare, government, discipline, and success of said institution.

SEC. 1291. The governor shall lay the reports, respectively, of the board of trustees and the board of visitors, annually, before the general assembly, in connection with his annual message, with such comments as he may see proper, and when so done the general assembly has power to revise and approve or reject the action of the board of trustees.

SEC. 1292. No person of any religious denomination shall be excluded from equal advantages of education and the immunities of the university on account of their speculative sentiments on religion, or for being of a different religious profession from the trustees or faculty.

SEC. 1293. The chancellor of the university, its professors and tutors, shall not be required to take certain oaths prescribed in its charter.

SEC. 1294. The chancellor has the authority to appear before the general assembly once at each session and address them in person on the condition, interests, and wants of the university.

SEC. 1295. The university may confer degrees as follows: (1) To each graduate of the university the degree of bachelor of arts; (2) to each graduate of the university, or of another college, of three years' standing, or to such graduates as have passed a year in the university schools (all being of good moral character), the degree of master of arts; (3) to all law students who have attended the lectures of the professors, and are recommended by them for the same, the degree of bachelor of laws; (4) to the graduates of such medical school as may be established by the trustees of the university, the degree of doctor of medicine; (5) to students in the university schools of two years' standing and proficient in two or more of them, the degree of doctor of philosophy; (6) to persons distinguished for learning, ability, and character, according to their respective vocations, the degree of doctor of laws, or of divinity, and, where appropriate, both. It may also confer such other degrees and honors as may tend to the promotion of the arts and sciences.

SEC. 1296. By the authority of the board of trustees there shall be established, in connection with the university, an institute combining the instruction usually given in academies and to the lower classes in colleges, and by the same authority there may be a reduction of the number of years usually spent in colleges prior to graduation. University schools for professional education, including the application of science to the industrial arts as well as to the more abstruse and recondite sciences, and especially for the promotion of medical and legal education, not omitting the application of chemistry to agriculture and mathematics to civil engineering.

SEC. 1297. There is reserved and set apart for the university campus, not subject to alienation, 37 acres of the tract of land donated to the university by the late Governor John Milledge.

SEC. 1298. The permanent income of said university from its bank stock shall not be less than $8,000 annually, and when the dividends from the bank shall not be equal to said sum, the governor is required to make up the deficiency semi-annually by his warrant on the State treasurer for its payment out of any money not otherwise appropriated.

[For the character of the funds see act 95 of 1898, *post*.]

SEC. 1299. The various acts of the general assembly relative to said university in force at the time of the adoption of this code, if not embraced herein and not inconsistent with what is so embraced, are still of force.

[In the case of Dart et al. *v.* Houston, 22 Ga. (1857), the supreme court remarked in deciding a controversy as to the legal status of the corporation known as the Glynn County Academy: "It is necessary in the outset to consider whether the 'Trustees of the Glynn County Academy' be a corporation of the class which constitutes a contract between the State government and the corporators within the meaning of that clause of the Federal Constitution which inhibits a State from passing a law impairing the obligation of contracts. * * * Chief Justice Marshall, in delivering the opinion of the court in Dartmouth College *v.* Woodward, remarked that 'if the act of incorporation be the grant of political power, if it create a civil institution to be employed in the administration of the government, or if the funds of the college be public property, or if the State of New Hampshire, as a government, be alone interested in the transactions, the subject is one in which the legislature of the State may act, according to its own judgment, unrestrained by any limitation of its power imposed by the Constitution of the United States.' * * * We will now trace the history of the Glynn County Academy. The fifty-fourth clause of the constitution of February, 1777, declares that 'schools shall be erected in each county, and supported at the general expense of the State, as the legislature shall hereafter point out.' The fourteenth section of the act for the more full and complete establishment of a public seat of learning in this State declares that all public schools instituted or to be supported by funds or public moneys in this State shall be considered as parts or members of the university, and shall be under the foregoing rules and regulations (being those prescribed for the university). Those rules and regulations show that the action of the board of visitors and the board of trustees was to be submitted to the supervision of the general assembly. * * * Commissioners were appointed for the town of Brunswick (1788) who were authorized to survey the town, and to sell all or any of the vacant lots in said town, except such as were reserved for public use, and the moneys arising from the sale were to be applied to the building and support of an academy in said town, and to no other purpose whatever. * * * In 1813 the legislature enacted that the commissioners of the town and commons of Brunswick should be commissioners of the academy, and appointed commissioners in 1814 and authorized them to sue and subjected them to suit. * * * In 1829 the inferior court of Glynn County was authorized and empowered to sell the academy building in said county and to apply the proceeds of the sale to the education of poor children in said county and for other county purposes. * * * In 1838 the Brunswick Academy was incorporated, and the act to authorize the trustees of the Glynn County Academy to establish free schools in said county was repealed. * * * The university was established in 1785, and the act establishing it made all public schools instituted or to be supported by the State members of the university and subject to the same rules and regulations, which placed them under the control of the general assembly. * * * The question is as to the legislative control claimed and exercised over the government of the academy. It was exercised and its act acquiesced in. * * * If the academy had been founded on private donations and incorporated in consideration thereof, the case would have fallen within the decision of the Dartmouth College case; * * * but the funds of the academy are public property, and the legislature was not, therefore, restricted by any limitation of State power in the Federal Constitution from passing the act of 1854, which we are asked to declare void."

In the Georgia Military Institute *v.* Simpson, contractor, in 1860, the court touched upon the same points, but in the way of arbiter. "The character of this institution," said the court, "is somewhat amphibious. It was originally a private corporation. It was purchased by the State in 1857, and it is difficult to determine now what is its true character. It is purely a public corporation, bought with the funds of the State, and under its exclusive management and control. It has two boards—a board of trustees and a board of visitors—and it is no easy matter to distinguish between the two. By the fourth section of the act of 1857 it is declared: 'There shall be a board of trustees, who shall exercise all the powers and faculties usually exercised by trustees of colleges.' Does this subject the State, through this corporation, to be sued? We think not. Special power was given to sue the Central Bank and the State Road. There is no such authority conferred as to this institution. * * * In this suit the trustees only were served. * * * [Now,] the contract out of which this action originated was made with the board of visitors. * * * It is manifest, then, that the Georgia Military Institute, if suable at all, *which we very much doubt*, can not be made chargeable through the board of trustees. * * * The appeal, therefore, must be to the public authorities and not to the courts."]

Acts and Resolutions, No. 95, 1898: SECTION 1. From and after the passage of this act, whenever the trustees of the university shall, through their duly authorized agent or officer, present at the State treasury for redemption any valid, matured bond of this State as the property of such university, it shall be the duty of the governor to issue such trustees, in lieu of said matured bond so presented for payment, an obligation in writing, in the nature of a bond, in amount equal to the principal of matured bond, and falling due fifty years from the date of such issue, the same to bear interest at the rate of 3½ per cent per annum, and not subject to be called in for redemption by the State before that time, nor to be negotiated or transferred by said trustees, said new bonds or obligations to be payable to the said trustees alone, and to be issued under the great seal of the State, and signed by the governor and countersigned by the secretary of state. The interest thereon to be paid semiannually on the 1st days of January and July of each year, the terms prescribed by this act for the issue of such obligations to be fully expressed in the body thereof, the amount of money necessary to pay the interest on such obligations being herein annually appropriated. (December 20, 1898.)

Ibid., No. 158: The board of trustees of the university of the State are hereby authorized to operate regular summer sessions of the University of Georgia in graduate courses and work closely related thereto, including psychology and the history and philosophy of education, for the special benefit of the white teachers of the State without regard to sex or age. (December 22, 1898.)

SEC. 1300. The Georgia Normal and Industrial College, at Milledgeville; State Normal School, at Rock College, Athens; State College of Agriculture and

Mechanic Arts, at Athens, with the Agricultural Experiment Station connected therewith, at Griffin; North Georgia Agricultural College at Dahlonega; Medical College of the University of Georgia, at Augusta; the Technological School, at Atlanta; Georgia State Industrial College for Colored Youth, at Savannah, are branches of the University of Georgia, and are governed in the manner prescribed in the respective acts incorporating the same.

SEC. 1301. All the branch colleges of the State University of Georgia, now or hereafter established, except the last mentioned in the preceding section, shall be open to all white female students of proper age and qualifications, with equal rights and privileges as those exercised and enjoyed by the male students of such institutions, under such rules and regulations as may be prescribed by the several boards of trustees of said institutions.

SEC. 1302. The board of directors of the Georgia Experiment Station shall have conducted throughout the State each year, during the season most convenient to the agriculturists, a series of farmers' institutes for the instruction of the citizens of this State in the better methods of agriculture in its various branches. These institutes shall be held at such time and places as said board may direct. The board shall make such rules and regulations as it may deem proper for organizing and conducting such institutes. In selecting lecturers for said institutes preference shall be given to practical successful farmers possessing aptitude for the work. The exercises of such institutes shall be so arranged as to present the results of the most recent investigations in practical agriculture.

SEC. 1303. It shall be the duty of said board to apply exclusively to the support of said institutes any moneys which may come into its possession under any act which the Federal Congress may hereafter pass in aid of farmers' institutes and any moneys which may be derived from any other source as a gift or donation in aid of farmers' institutes. Said board shall account to the governor for all such moneys quarterly, showing in detail amounts received, sources whence derived, and how expended. Reports as to moneys which may be received under any act of the Federal Congress as above indicated shall conform to Congressional requirements. Biennially said board shall, through the commissioner of agriculture, report to the governor in detail its acts and doings as to said institute. The biennial reports shall embrace all the facts contained in the quarterly reports herein required.

SEC. 1015. [Public Property, chapter 1—Public buildings.] The State has an interest in the university at Athens, the asylum for the blind at Macon, the buildings of the Technological School, and of the other branch colleges.

Joint resolution, November 26, 1890: The State of Georgia hereby accepts the donation from the United States of a part of the proceeds of the public lands to be paid and used as provided in an act of Congress of the United States, approved August 30, 1890, upon the terms and conditions prescribed therein.

General laws, 1890-91: SECTION 1. There shall be established in connection with the State university, and forming one of the departments thereof, a school for the education and training of colored students. Said school shall be located, equipped, and conducted as hereinafter provided.

SEC. 2. The governor shall appoint five fit and discreet persons, residents of this State, to be known as the "Commission on the school for colored students," who shall serve without pay, except that their actual expenses while away from their several places of residence, attending to the duties of such commission, may be allowed, as hereinafter provided; and they may select from their number a chairman and secretary, prescribe rules and regulation for their government, accept the resignation of any member, and fill all vacancies. A majority shall constitute a quorum for the transaction of business.

SEC. 3. It shall be the duty of said commission, as soon as practicable after the passage of this act, to procure the grounds and buildings necessary for the establishment of the school herein provided for. It shall be located within or near the corporate limits of that city or town in the State which shall offer the best inducements for such location, in the opinion of said commission. In making a selection of a location for said school the commission shall give preference to such place as shall be of easy access to all the colored people of the State, having due regard to the appropriateness, eligibility, and healthfulness of the surroundings, as well as to any offer or donation of value that may be made to secure the said school, and any inducements offered by any nonsectarian institute of this State. The selection once made shall be final.

SEC. 4. The said commission, as soon as they shall have selected the location and procured the necessary grounds, shall proceed to have erected on such grounds suitable buildings for such school, or, in case they secure grounds upon which there are buildings already erected, shall proceed to remodel the same,

erecting any additional buildings that may be necessary and practicable under the appropriations made therefor.

SEC. 5. A course of training shall be provided for all the students in said school, embracing the studies required by the acts of Congress of the United States, approved July 2, 1862, and August 30, 1890, making donations of public lands and the proceeds thereof to the States and Territories for educational purposes. No student shall be permitted to remain in the institution unless satisfactory progress shall be made by him, in the opinion of the faculty.

SEC. 6. The said school, when so established, shall be a part of the University of Georgia, and under control and management of its board of trustees. Said board shall have authority from time to time to add such special features to the course and to open such other departments of training and instruction therein as they shall deem that the progress and advancement of the times require. They shall also have authority to ordain and establish such rules and by-laws for the regulation of the school and the teaching, training, and governing of the students, not inconsistent with this act, as in their opinion may be proper to secure the success of said school.

SEC. 7. The officers of said school shall be a president, and such other professors, teachers, and instructors as may be necessary, in the opinion of the board of trustees, to carry on the school in accordance with the intention of this act. The chancellor of the University of Georgia shall have the general supervision of said school. The officers aforesaid shall be elected and their salaries fixed, either directly by the board of trustees or through the local board of trustees hereinafter provided for.

SEC. 8. When the necessary buildings shall have been procured, erected or completed as required by this act, and said school shall be ready for the reception of students, said commission shall notify the board of trustees of the University of Georgia, and shall turn the said school over to their control and management.

SEC. 9. There shall be one beneficiary for each representative in the general assembly from each county in this State, selected by the board of education in each county, under such rules and regulations to be prescribed by the local board of trustees herein provided for, and who shall be first entitled to the benefits of said school; the tuition shall be free to all students who are residents of the State of Georgia. The rate of tuition to others than residents of the State shall not exceed fifty dollars per annum.

SEC. 10. The five persons named in the second section of this act shall become, as soon as said school is turned over by them to the board of trustees of the University of Georgia, a local board of trustees for said school, with perpetual succession, as hereinbefore provided, and they shall always be charged with the immediate control, supervision, and management of said school, subject to the general board of trustees. The chairman of said local board of trustees shall be *ex officio* a member of the board of trustees of the University of Georgia.

SEC. 11. All property purchased under authority of this act shall be free from liens or incumbrances, and title to the same, as well as to any donation that said commission may receive, shall be taken in the name of the trustees of the University of Georgia, in their corporate capacity, and said property shall become the property of the State of Georgia, and the same shall not be alienated by any one, nor shall any valid lien be created thereon, neither in the erection of any building thereon, nor by the act of any person, nor by the operation of law.

SEC. 12. When one of said commission shall have incurred any necessary expense while away from his place of residence in the performance of his duty under this act, then, on verification of the same, by his affidavit, the governor may indorse the same as correct, and order it paid out of the funds herein appropriated. Any indebtedness for plans and specifications must likewise be indorsed by the governor before payment of the same is made.

SEC. 13. When said commission shall have performed their duties under this act and shall turn over said property to the trustees of the University of Georgia, as herein provided, said commission shall submit to said board a full and final statement describing the property purchased, the amount of money expended therefor, with proper vouchers, and said board of trustees, after verification of the same, shall transmit to the governor said report, with any suggestions therewith they may deem proper to make, and the governor shall transmit to the general assembly a summary of the same.

SEC. 14. The sum of eight thousand dollars is hereby annually appropriated to the board of trustees of the university to be drawn upon executive warrant in their favor for said purposes.

SEC. 15. The appropriation herein provided for shall be in lieu of any claim of the colored population of this State upon the proceeds of the agricultural land

scrip donated by the Congress of the United States by said act of Congress approved July 2, 1862.

SEC. 16. The board of visitors of the State university, or a committee of their body, shall exercise like functions and powers touching said institution as are prescribed by law for said board in relation to the State university.

SEC. 17. As to the additional donation of the proceeds of public lands made to this State by the United States under said act of Congress approved August 30, 1890, the general assembly proposes and reports to the Secretary of the Interior of the United States as a just and equitable division of the funds to be received under said act of August 30, 1890, between one college for white students and one institution for colored students, that one-third of said fund shall be for the colored students and two-thirds for the whites, provided, that this division may be at any time modified by the written consent of the Secretary of the Interior of the United States and the governor of Georgia for the time being, so as to make the same a just and equitable division of the fund arising under said act of Congress of August 30, 1890, between the white and colored people of the State for the purposes of said education.

SEC. 18. The act approved March 3, 1874, entitled "An act to equitably adjust the claims of the colored race for a portion of the proceeds of the agricultural land scrip," by which eight thousand dollars per annum was heretofore appropriated to the Atlanta University, is hereby repealed. And no colored student shall be admitted into the university and no white student shall be admitted into the school for colored students herein provided and established.

SEC. 19. All laws and parts of laws in conflict with the provisions of said act, including said act of March 3, 1874, are hereby repealed. (November 26, 1890.)

IDAHO.

Constitution (1889) Article X: SECTION 1. Educational, reformatory, and penal institutions, and those for the benefit of the insane, blind, deaf and dumb, and such other institutions as the public good may require, shall be established and supported by the State in such manner as may be prescribed by law.

SEC. 2. All property and institutions of the Territory shall, upon the adoption of the constitution, become the property and institutions of the State of Idaho.

[The following matter is taken from the general laws of the State of Idaho.]

General laws, 1888–89: SECTION 1. There is hereby established in this Territory, at the town of Moscow, in the county of Latah, an institution of learning by the name and style of "The University of Idaho."

SEC. 2. [See act passed at fifth session.] The government of the university shall vest in a board of regents to consist of nine members chosen from the Territory at large, which board the governor shall nominate and, by and with the advice and consent of the legislative council, appoint. The term of office of said regents shall be two years from the first Monday in February in the year in which appointed.

SEC. 3. The board of regents and their successors in office shall constitute a body corporate by the name of "The Regents of the University of Idaho," and shall possess all the powers necessary or convenient to accomplish the objects and perform the duties prescribed by law, and shall have the custody of the books, records, buildings, and other property of said university. The board shall elect a president, secretary, and treasurer who shall perform such duties as shall be prescribed by the by-laws of the board. The secretary shall keep a faithful record of all the transactions of the board and of the executive committee thereof. The treasurer shall perform all the duties of such office, subject to such regulations as the board may adopt, and for the faithful discharge of all his duties shall execute a bond in such sum as the board may direct.

SEC. 4. The time of the election of the president, secretary, and treasurer of said board, and the duration of their respective terms of office and the times for holding the regular annual meeting and such other meetings as may be required, and the manner of notifying the same, shall be determined by the by-laws of the board. A majority of the board shall constitute a quorum for the transaction of business, but a less number may adjourn from time to time.

SEC. 5. The board of regents shall enact laws for the government of the university in all its branches, elect a president and the requisite number of professors, instructors, officers, and employees, and fix the salaries and the term of office of each, and determine the moral and educational qualifications of applicants for

admission to the various courses of instruction; but no instruction either sectarian in religion or partisan in politics shall ever be allowed in any department of the university, and no sectarian or partisan test shall ever be allowed or exercised in the appointment of regents or in the election of professors, teachers, or other officers of the university, or in the admission of students thereto, or for any purpose whatever. The board of regents shall have power to remove the president or any professor, instructor, or officer of the university, when in their judgment the interests of the university require it. The board may prescribe rules and regulations for the management of the libraries, cabinet, museum, laboratories, and for the care and preservation thereof, with penalties and forfeitures, by way of damages for their violation, which may be sued for and collected in the name of the board, before any court having jurisdiction of such action.

SEC. 6. The board of regents are authorized to expend such portion of the income of the university fund hereinafter created as they may deem expedient for the erection of suitable buildings and the purchase of apparatus, a library, cabinets, and additions thereto.

SEC. 7. At the close of each fiscal year the regents, through their president, shall make a report in detail to the governor, exhibiting the progress, conditions, and wants of the university, the course of study, the number of professors and students, the amount of receipts and disbursements, together with the nature, costs, and results of all important investigations and experiments, and such other information as they may deem important.

SEC. 8. The president of the university shall be president of the faculty or of the several faculties as they may be hereafter established and the executive head of the instructional force in all its departments. As such, he shall have authority, subject to the board of regents, to give general direction to the instruction and scientific investigation of the university, and so long as the interests of the institution require it he shall be charged with the duties of one of the professorships. The immediate government of the university shall be intrusted to the faculty, but the regents shall have power to regulate the course of instruction and prescribe the books or works to be used in the several courses and also to confer such degrees and grant such diplomas as are usual in universities or as they shall deem appropriate, and to confer upon the faculty, by by-laws, the power to suspend or expel students for misconduct or other cause prescribed by such by-laws.

SEC. 9. The object of the University of Idaho shall be to provide the means of acquiring a thorough knowledge of the various branches of learning connected with scientific, industrial, and professional pursuits, and to this end it shall consist of the following colleges or departments, to wit: First, the college or department of arts; second, the college or department of letters; third, the professional or other colleges or departments as may from time to time be added thereto or connected therewith.

SEC. 10. The college or department of arts shall embrace courses of instruction in mathematical, physical, and natural sciences with their application to the industrial arts, such as agriculture, mechanics, engineering, mining, and metallurgy, manufactures, architecture, and commerce in such branches included in the college of letters as shall be necessary to a proper fitness of the pupils in the scientific and practical courses for their chosen pursuits, and, as soon as the income of the university will allow, in such order as the wants of the public shall seem to require, the said courses in the sciences and their application to the practical arts shall be expanded into distinct colleges of the university, each with its own faculty and appropriate title. The college of letters shall be coexistent with the college of arts and shall embrace a liberal course of instruction in language, literature, and philosophy, together with such courses or parts of courses in the college of arts as the regents of the university shall prescribe.

SEC. 11. The university shall be open to female as well as male students, under such regulations and restrictions as the board of regents may deem proper.

SEC. 12. No student who shall have been a resident of the Territory for one year, next preceding his admission, shall be required to pay any fees for tuition in the university, except in a professional department and for extra studies. The regents may prescribe rates of tuition for any pupil in a professional department, or who shall not have been a resident as aforesaid, and for teaching extra studies.

SEC. 13. The board of regents herein provided for shall be appointed immediately after this act becomes a law; and within ninety days after the appointment of said regents the board shall meet at Boise City and elect a president, secretary, and treasurer thereof, and shall at said meeting adopt by-laws for the government of said board and the officers chosen by virtue of this act.

SEC. 14. The sum of $15,000 is hereby appropriated out of any money in the Territorial treasury of Idaho, not otherwise appropriated, and the Territorial

comptroller is hereby authorized to draw his warrant on the Territorial treasurer for said amount, and the Territorial treasurer is hereby directed and commanded to pay the same, as hereinafter provided, which money shall be expended for the following purposes, to wit: First, the purchase of a site or grounds for said university, said location to consist of not less than 10 nor more than 20 acres of ground, and for the improvement of the same, and for keeping the same in repair; second, to advertise for and obtain plans and specifications for a university building, under such rules and regulations as the board may impose; third, for the payment of the necessary expenses of said board, as hereinafter provided.

SEC. 15. The president and secretary ex officio, and one member of the board to be appointed by the president thereof, shall constitute an executive committee of said board, whose duties shall be prescribed by the by-laws of the board.

SEC. 16. Upon executing and filing with the Territorial treasurer a good and sufficient bond, in whatever sum the board of regents shall direct, provided said bond shall have been first approved by the Territorial attorney-general, the Territorial treasurer shall pay over to the treasurer of said board the sum of $15,000, or so much thereof as may be available; and in the event said sum is not paid in full upon the execution and delivery of said bond as aforesaid, then the remainder of said sum shall be transferred to the treasurer of said board as speedily as the fund shall accumulate therefor.

SEC. 17. The treasurer of said board shall, out of any moneys in his hands belonging to said board, pay all orders drawn upon him by the president and secretary thereof, when accompanied by vouchers fully explaining the character of the expenditure, and the books and accounts of the treasurer shall at all times be open to the inspection of the board. The treasurer shall make an annual report to the president of the board of all transactions connected with the duties of his office.

SEC. 18. There shall be levied and collected annually a Territorial tax of one-half mill for each dollar of the assessed valuation of the taxable property of the Territory, which amount, when so levied and collected, shall be appropriated to a university-building fund to remain in the treasury subject to the order of the board of regents; but in no event shall said board appropriate the fund thus collected, or any portion thereof, to any purpose other than that for which said fund was provided: *And provided further*, That said tax shall not be levied and collected for a longer period than four years.

SEC. 19. The regents shall receive the actual amount of their expenses in traveling to and from and in attendance upon all meetings of the board, or incurred in the performance of any duty in pursuance of any direction of the board; accounts of such expenses shall be duly authenticated and audited by the board, and be paid on their order by the treasurer out of any fund belonging to the university not otherwise appropriated. No regent shall receive any pay, mileage, or per diem except as above prescribed. (January 30, 1889.)

General laws, first session (1890-91): SECTION 1. The assent of the legislature of the State of Idaho is hereby given to all the provisions of an act of Congress approved July 2, 1862, and also to an act approved March 2, 1887, entitled "An act to establish agricultural experiment stations in connection with the colleges established in the several States under the provisions of an act approved July 2, 1862, and the acts supplemental thereto," and the acts amendatory thereof and supplementary thereto. (January 23, 1891.)

General laws, first session (1890-91): SECTION 1. Section 18 of an act to establish the University of Idaho be amended to read as follows: SEC. 18. There shall be levied and collected annually a State tax of three-quarters of a mill for each dollar of the assessed valuation of taxable property of the State of Idaho, which amount, when so levied and collected, shall be appropriated to a university building fund, to remain in the treasury subject to the order of the board of regents; but in no event shall said board appropriate the fund thus collected, or any portion thereof, to any purpose other than that for which said fund was provided: *And provided further*, That said tax shall not be levied and collected for a longer period than four years from the date hereof. (February 12, 1891.)

General Laws, second session: SECTION 1. Section 1 of an act to establish the University of Idaho [evidently the act of February 2, 1891, is the one referred to, not section 18 of the act of January 30, 1889, referred to in the foregoing law of February 12, 1891] be amended to read as follows: There shall be levied and collected annually a State tax of three-quarters of a mill for each dollar of the assessed valuation of taxable property of the State of Idaho, which amount when so levied and collected shall be appropriated to a university building fund, to remain in the treasury subject to the order of the board of regents; but in no event shall said board appropriate the funds thus collected or any portion thereof

to any purpose other than that for which said fund was provided, and provided that said tax shall be levied and collected for the years 1893, 1894, and 1895; and that the said board of regents may anticipate the receipt of the said taxes by issuing warrants to the contractors for the erection of the buildings, bearing interest at not more than 6 per cent per annum, payable out of the first moneys received from said taxes, and said warrants shall be a charge upon said taxes only and not a charge against the State. (February 24, 1893.)

General Laws, fifth session: SECTION 1. Section 2 of an act to establish the University of Idaho is amended to read as follows: SEC. 2. The government of the university shall vest in a board of regents to consist of nine members chosen from the State at large, which board the governor shall nominate, and with the advice and consent of the Senate, appoint. The term of office of said regents shall be six years from the first Monday in February in the year in which appointed: *Provided*, That the regents appointed in the year 1899 shall hold their offices during the following periods: Three shall be appointed for a term of two years, three shall be appointed for a term of four years, and three shall be appointed for a term of six years. The governor shall have power to fill vacancies in the board by appointment, which appointment shall be valid until the last day of the regular session of the legislature following such appointment.

Ibid: SECTION 1. For the purpose of providing money for the finishing and furnishing the State University of Idaho, etc., a loan of $49,000 is authorized.

SEC. 8. Fourteen thousand dollars shall be paid out for expenses incurred in finishing and furnishing the State University of Idaho. (March 9, 1899.)

General Laws, sixth session: SECTION 1. Section 2 of an act "To establish the University of Idaho," is amended to read as follows: SEC. 2. The government of the university shall vest in a board of regents, to consist of five members chosen from the State at large, which board the governor shall nominate, and with the advice and consent of the senate, appoint. The said board shall be nonpartisan, no more than three of whom shall be of the same political party. The terms of office of said regents shall be six years from the first Monday in February in the year in which appointed: *Provided*, That the regents appointed in the year 1901 shall hold their office during the following periods: One shall be appointed for a term of four years and two shall be appointed for a term of six years. The governor shall have power to fill vacancies in the board by appointment, which appointment shall be valid until the last day of the regular session of the legislature following such appointment. (March 4, 1901.)

Ibid: SECTION 1. For the purpose of providing money for the erection of a school of science hall, and for the erection of a girls' dormitory and the furnishing thereof at the University of the State of Idaho, a loan of $50,000 is hereby authorized, to be negotiated by a board consisting of the governor, treasurer, secretary of state, and attorney-general of the State of Idaho, on the faith and credit of the State of Idaho, and secured by the proceeds, as herein provided, of the sales of school of science lands and timber on such lands, and of the interest on the moneys accruing from the sales of lands and timber belonging to the Agricultural College and the State University.

SEC. 5. For the purpose of securing the payment of the principal of the bonds Nos. 1 to 25, inclusive, provided for in this act, the proceeds of the sale of all the lands, or of the timber growing thereon, granted to the State of Idaho by the United States for the establishment and maintenance of a school of science, are hereby set apart as a separate and distinct fund, to be known as the school of science building fund; and after the payment of said principal of said bonds of this act, then the proceeds of the sales of said lands or timber shall be paid into the general fund in the State treasury until the amount, equal to the total amount of interest that has heretofore been paid out of the general fund on said bonds, issued under the provisions of this act, less the amount of interest that may have been paid into the said general fund from investment of school of science sinking fund money in State warrants as herein provided, has been so paid into the general fund. When the principal of said bonds shall have been fully paid, and the general fund of the State reimbursed for the interest on said bonds provided for in this act, then and thereafter the proceeds of the sales of said lands and timber shall be disposed of as may by law be provided.

SEC. 6. For the purpose of securing the payment of the principal of the bonds Nos. 26 to 50, inclusive, provided for in this act, the interest on the proceeds of the sale of all the lands, or of timber growing thereon, granted to the State of Idaho by the United States for the support and maintenance of an agricultural college and for the support and maintenance of a State university are hereby set apart as a distinct fund, to be known as the university dormitory building fund; and after the payment of said principal of said bonds of this act, then the inter-

est on the proceeds of the sales of said lands or timber shall be paid into the general fund in the State treasury until the amount, equal to the total amount of interest that has heretofore been paid out of said general fund on said bonds, issued under the provisions of this act, less the amount of interest that may have been paid into the said general fund from the investment of university dormitory building sinking fund money in State warrants as herein provided, has been so paid into the general fund. When the principal of said bonds shall have been fully paid and the general fund of the State reimbursed for interest on said bonds provided for in this act, then and thereafter the interest on the proceeds of the sale of said lands and timber shall be disposed of as may be provided by law. (March 14, 1901. The act has 9 sections; those omitted deal with the financing of the loan.)

ILLINOIS.

Constitution (1870), Article VIII: SECTION 2. All lands, moneys, or other property donated, granted, or received for school, college, seminary, or university purposes, and the proceeds thereof, shall be faithfully applied to the objects for which such gifts or grants were made.

SEC. 3. Neither the general assembly nor any county, city, town, township, school district, or other public corporation, shall ever make any appropriation or pay from any public fund whatever anything in aid of any church or sectarian purpose or to help support or sustain any school, academy, seminary, college, university, or other literary or scientific institution controlled by any church or sectarian denomination whatever; nor shall any grant or donation of land, money, or other personal property ever be made by the State or any such public corporation to any church or for any sectarian purpose.

[The following matter is taken from "The Revised Statutes of the State of Illinois, 1901, compiled and edited by Harvey B. Hurd." Chicago, 1901.]

Chapter 144: SECTION 1. Any corporation which has been or may be incorporated under any general law of this State for the purpose of establishing or conducting a university, college, academy, or other institution of learning, in addition to the powers granted by such law, shall have power to take by purchase, gift, grant, devise, or bequest, and to hold for the use of such corporation, any real or personal property whatever, and to sell, convey, mortgage, or otherwise use the same as may be considered most conducive to the interests of such institution; but such corporation shall have no power to divert any gift, grant, devise, or bequest from the specific purpose designated by the donor.

SEC. 16. The Illinois Industrial University, located at Urbana, in Champaign County, shall, after the passage of this act, be known as the University of Illinois, and under that name and title shall have, possess, be seized of, and exercise all rights, privileges, franchises, and estates which have hitherto belonged to, or may hereafter inure to, the said Illinois Industrial University.

SEC. 17. There shall be elected at the general election, to be held in the several precincts and counties of this State on the Tuesday next after the first Monday of November, 1888, and every two years thereafter three trustees of the University of Illinois, and the trustees so elected, together with the governor, the president of the State board of agriculture, the superintendent of public instruction, and those persons who may have been appointed by the governor, to be trustees of said university, and whose terms of office shall not have expired, shall constitute the board of trustees of the University of Illinois, and shall succeed to and exercise all the powers conferred by the act "to provide for the organization and maintenance of the Illinois Industrial University," approved February 28, 1867, except as is herein or may be hereafter provided by law.

SEC. 18. The trustees, to be elected as provided in this act, shall be voted for on the same ballots with the State officers to be chosen at such recurring general elections, and the election of said trustees shall be conducted, and the canvass, statement, and returns of the votes cast for said trustees shall be made in the same manner and by the same officers, and shall be governed in every particular by the laws of this State governing a general election. The term of office to be held severally by the trustees so elected and by their successors shall be six years from the second Tuesday of March next succeeding the dates of their several elections, and until their successors shall have been elected and qualified; provided, in case of vacancy in said board such vacancy shall be filled by appointment by the governor until the next general election. Said board of trustees may appoint an executive committee of three chosen out of their own number, which committee, when said board is not in session, shall have the management

and control of the university and of its affairs, and for that purpose shall have and exercise all the powers which are necessary and proper for such object, except in so far as the board may reserve such powers to itself, and any powers granted at any time by said board to such executive committee the board may at any time revoke.

SEC. 19. To equalize the advantages of the University of Illinois to all parts of the State, there shall be awarded annually, as hereinafter provided, to each county of the State one State scholarship, which shall entitle the holder thereof, who shall be a resident of the senatorial district to which he is accredited, to instruction in any or all departments of said University of Illinois for a term of four years, free from any charge for tuition or any incidental charge, unless such incidental charges shall have been made for materials used or for damages needlessly done to property of the university: *Provided*, That in counties having two or more senatorial districts there shall be awarded annually one additional scholarship for each of said senatorial districts.

SEC. 20. A competitive examination under the direction of the superintendent of public instruction shall be held at the county court-house in each county of the State upon the first Saturday of June in each and every year by the county superintendent of schools upon such branches of study as said superintendent of public instruction and the president of said university may deem best.

SEC. 21. Questions for such examinations shall be prepared and furnished by the president of the university to the superintendent of public instruction, who shall attend to the printing and distribution thereof to the several county superintendents of schools prior to such examinations.

SEC. 22. In case any candidate who shall be awarded a scholarship shall fail to pass the entrance examination to the university, or shall fail to claim the privileges of such scholarship, or having claimed the privileges shall be expelled, or for any reason shall abandon his right to or vacate such scholarship either before or after entering thereupon, then the candidate certified to be next entitled in the same county shall become entitled to the same. In case any scholarship belonging to any county shall not be claimed by any candidate resident in that county, the superintendent of public instruction may fill the same by appointing some candidate first entitled to a vacancy in some other county, after notice has been served upon the county superintendent of said first-mentioned county.

SEC. 23. The county superintendents shall, within ten days after such examination, make and file in the office of the superintendent of public instruction certificates, in which they shall name all the candidates examined and specify the order of their excellence; and such candidates shall, in the order of their excellence, become entitled to the scholarships belonging to their respective counties. The examination papers handed in by each candidate shall also be filed with the certificate of examination.

SEC. 24. Candidates to be eligible to said scholarship shall be at least 16 years of age, and shall have been bona fide residents of their respective counties for at least one year immediately preceding the examination.

SEC. 25. Any student holding a State scholarship, and who shall make it appear to the satisfaction of the president of the university that he requires leave of absence for the purpose of earning funds to defray his expenses while in attendance, may, in the discretion of the president, be granted such leave of absence, and may be allowed a period not exceeding six years from commencement thereof for the completion of his course at said university.

SEC. 26. Notices of the time and place of the examination shall be given in the schools having pupils eligible thereto prior to the 1st day of January in each year. The superintendent of public instruction shall attend to the giving of the notices hereinbefore provided for; he may in his discretion direct that the examination in any county may be held at some other time and place than that hereinbefore specified; he shall keep full records in his department of the reports of the different examiners, showing the age, post-office address, and standing of each candidate, and shall notify candidates of their rights under this act; he is hereby charged with the general supervision and direction of all matters in connection with the filling of such scholarships; he shall determine any controversy which may arise under this act.

SEC. 27. Students enjoying the privileges of State scholarships shall, in common with other students of said university, be subject to all the examinations, rules, and requirements of the board of trustees and faculty as herein provided.

SEC. 28. Nothing herein contained shall be construed to prevent the board of trustees of said university from granting such other free scholarships as in their discretion may be deemed best.

SEC. 29. The trustees of the University of Illinois are hereby authorized an-

directed to establish a chemical and biological survey of the waters of the State in connection with the said university.

SEC. 30. It shall be the duty of the university to collect facts and data concerning the water supplies of the State; to collect samples of waters from wells, streams, and other sources of supply; to subject these samples to such chemical and biological examination and analysis as shall serve to demonstrate their sanitary condition, and to determine standards of purity of drinking waters for the various sections of the State; to publish the results of these investigations in a series of reports to be issued annually or oftener, to the end that the condition of the potable waters of the State may be better known and that the welfare of the people of the various communities of the State may thereby be conserved.

SEC. 31. For the installation and support of said survey there is hereby appropriated the sum of $3,000 per annum.

SEC. 32. The auditor of state is hereby authorized and directed to draw his warrants quarterly, in advance, on the treasurer for the sums hereby appropriated, upon the order of the chairman of the board of trustees of the University of Illinois, attested by the secretary, and with the corporate seal of the university: *Provided*, That no part of said sums shall be due and payable to said institution until satisfactory vouchers in detail, approved by the governor, shall be filed with the auditor, for the expenditure of the last quarterly installment of appropriations herein made.

SEC. 43. To assist and encourage useful education among the farmers and for developing the agricultural resources of the State, an organization under the name and style of "Illinois Farmers' Institute" is hereby created and declared a public corporation of the State.

SEC. 44. It shall consist of three delegates from each county of the State, elected annually at the farmers' institutes for said county by the members thereof.

SEC. 45. The affairs of the "Illinois Farmers' Institute" shall be managed by a board of directors, consisting of (1) State superintendent of public instruction, (2) professor of agriculture of the University of Illinois, (3) president of the State board of agriculture, (4) president of the State Horticultural Society, (5) president of the State Dairymen's Association, and one member from each Congressional district of the State, to be selected by the delegates from the district present at the annual meeting of this organization: *Provided*, That the members first selected from the Congressional districts of even numbers shall serve for one year and the members first selected from the Congressional districts of odd numbers shall serve for two years, and that the members selected thereafter to fill expired terms of office shall serve for a period of two years.

SEC. 46. The board of directors of the Illinois Farmers' Institute shall have sole care and disposal of all funds that may be appropriated by the State to sustain the organization, and shall expend the same in such manner as in their judgment will best promote the interest in useful education among the farmers and develop the agricultural resources of the State. The Illinois Farmers' Institute shall make annual report to the governor of its transactions, which report shall include papers pertaining to its work and addresses made at the annual meeting of the organization, and a classified statement of all the moneys received and of all expenditures made; and 20,000 copies of said report shall be printed on or before September 1 of each fiscal year, one-half for the use of the Illinois Farmers' Institute and the remainder to the secretary of state for distribution. It shall make no appropriation without funds in hand to meet the same, and the State of Illinois shall in no event be held liable or responsible for any debt, obligation, or contract made by the Illinois Farmers' Institute or its board of directors.

SEC. 47. There shall be held annually, under the direction of the board of directors, between October 1 and March 1 following of each year, a public meeting of the delegates from county farmers' institutes and of farmers of this State, at such time and place as may be determined by the board of directors, of not less than three days' duration, which meeting shall be held for the purpose of developing the greater interest in the cultivation of crops, in the care and breeding of domestic animals, in dairy husbandry, in horticulture, in farm drainage, in improved highways, and general farm management, through and by means of liberal discussion of these kindred subjects, and any citizen may take part in these meetings, but only duly elected and accredited delegates from county farmers' institutes shall be permitted to vote in the election of the board of directors.

SEC. 48. The members of each new board of directors shall enter upon their duties the next Tuesday after their election and hold their offices for one or two years, as provided in section 3, or until their successors are elected and enter upon their duties; it shall have power to fill vacancies in the board; it shall organize by the election of a president, vice-president, secretary, treasurer, and State super-

intendent of the Farmers' Institutes, and such other officers or agents as may be deemed proper for organizing and conducting the work of the organization, who shall hold their offices for one year, unless removed sooner by the board, and shall perform such duties as may be required of them by rules of the board. The secretary, treasurer, and superintendent may be other than members of the board.

SEC. 49. Rooms in the capitol building shall be assigned to the officers of this organization by the proper authority, which shall then be under the control of the board of directors.

SEC. 50. The board of directors may make and enforce such rules and by-laws, not in conflict with the laws of this State, as will render its work most useful and efficient.

SEC. 51. For the purpose mentioned in the preceding sections, said board of directors may use such sum as it may deem proper and necessary, not exceeding the amount appropriated therefor by the general assembly from the general fund for that purpose: *Provided, further*, That the (1) State superintendent of public instruction, (2) professor of agriculture of the University of Illinois, (3) president of the State board of agriculture, (4) president of the State Horticultural Society, (5) president of the State Dairymen's Association, and the present Congressional representatives of the Illinois Farmers' Institute Association shall constitute the first board of directors of this organization, who shall have charge of the affairs of the same until their successors have been duly elected and enter upon their duties, as provided in this act.

[By an act of the general assembly passed February 21, 1861, there was incorporated an institution called the Illinois Agricultural College "for the purpose of instruction in practical and scientific agriculture." For the purpose of enabling the college to perform this duty, by the eighth section of the charter, the State gave to the corporation the college and seminary lands of the State, and the evidence shows that these were subsequently sold by the college for $58,000. The school was opened in 1866. "But it was in character no more than a common school. The directors provided no means for teaching scientific agriculture, and erected no workshops nor provided facilities for teaching the mechanic arts. On the contrary, the whole effort seems to have been a miserable failure. These facts, as shown by the evidence in the case, seem most clearly to establish a waste and perversion of the fund donated by the State. That fund had been granted to the State by Congress for the purpose of maintaining a college or seminary of the character created by this charter,[a] and there would seem to be no doubt that the general assembly intended, when they donated it, that it should be held as a sacred trust fund for the establishment, improvement, and carrying on a college of the character they were incorporating. It manifestly was not to maintain a common school for that particular neighborhood. It was intended to be an institution for the benefit of young men throughout the entire State, and they so provided by the charter; but the trust was violated, the fund perverted or squandered, and the purpose of the general assembly defeated, and the benefits intended to be conferred by a judicious use of the trust fund were lost. The corporation, however, claim that by the amendment of their charter by act of February 12, 1867, they were released from the duty of imparting knowledge of practical agriculture and the mechanic arts. That section provides that they shall be permitted to impart instruction in all the branches taught in similar institutions in any of the States of the Union, or contemplated by the act of Congress donating land to the several States to establish agricultural colleges.[a] We fail to perceive how this in anywise releases the college from any duty imposed by the charter. It may enlarge their powers, but surely does not diminish them. That enactment does not purport to, nor does it, release the corporation from any duty imposed. The corporation having accepted of the donation and their charter, it was with the implied agreement that they would perform, in good faith, the duties imposed by the charter. One of the duties imposed was that they would hold the lands donated, or the proceeds of their sale, for the 'purpose of establishing, improving, and carrying on said college and farm.' This was the trust created, but it has been abused, the fund misappropriated and wasted, and the institution is shown to have become incapable of executing the trust, in the future, in accordance with the terms of the charter. This being true, and a court of equity having jurisdiction of trusts and trust property, it may, in case of waste, perversion, or mobility or indisposition of the trustee to execute the trust, seize the property or fund and place it in the hands of a trustee who will execute the trust.

In this case the land was granted by the General Government to the State, in trust for agricultural and educational purposes—not for common-school purposes, but as a college and seminary fund for education of a higher character, and to that end it was intrusted to this corporation: and when the fund was put in the land and buildings of the colleges, it did not lose its character of trust funds. It still retained that character, although perverted to the use of a district school, using the buildings for that purpose, and renting the lands and appropriating the rents to the same purpose. * * * There was also, on the part of the court below in dismissing the bill, most manifest error in rendering a decree for costs, as the State is never liable to be decreed to pay costs, and the attorney-general only acted in his official character. The Attorney-General v. The Illinois Agricultural College et al. (1877), 85 Ill.

In 1853 the general assembly of Illinois passed an act, the third section of which provided that: All property described in this section, to the extent herein limited, shall be exempt from taxation. That is to say (1) all lands donated for school purposes and not sold or leased; all public schoolhouses and houses used exclusively for public worship, the books and furniture therein, and the grounds attached to such buildings necessary for the proper occupancy, use, and enjoyment of the same and not leased, or otherwise used with a view to profit; all colleges, academies; all endowments made for their support; all buildings connected with the same and all lands connected with institutions of learning not used with a view to profit. This provision

[a] The fourth section reads: That said act [of February 21, 1861] be so amended as to permit said college to impart instruction in all the branches taught in similar institutions in any of the States of this Union, or contemplated in the act of Congress donating lands or scrip to the several States for the establishment of agricultural colleges. Private Laws, 1867, p. 1.

shall not extend to leasehold estates of real property held under the authority of any college or university of learning. On an appeal from a judgment for taxes of 1870 assessed against lands belonging to the board of trustees of the Illinois Industrial University, against whom the board of supervisors of Champaign County obtained a judgment in the circuit court of Champaign County, the supreme court said: "This is an appeal from a judgment for taxes of 1870 assessed against lands belonging to appellants and conveyed to them in consideration that the Industrial University should be located at Urbana in this State. It is clear that the title to these lands is in appellants in trust and that the institution and its property is under the control of the State and is held in trust for the State; that as it is the property of the State it is exempt from taxation. * * * The only question, then, presented by this record is whether this is the property of the State. If so then it is exempt from taxation. To determine that question we must turn to the act which brought this institution into existence. Congress having donated a large amount of land scrip to the State for the purpose of founding a university and the board of supervisors of Champaign County having offered to donate a college edifice and a large quantity of land if the State would locate permanently the Illinois Industrial University at Urbana, in that county, the general assembly on the 28th day of February, 1867, created a body corporate to govern the fund and the university. The trustees were to be appointed by the governor and to be confirmed by the senate. * * * They were required to permanently locate the institution at Urbana and to provide the requisite buildings, apparatus, and conveniences, to fix the rates of tuition, to appoint the professors, etc. * * * The appropriations at each session of the legislature might be referred to as showing that the general assembly regard and have always regarded this as a State institution. The fund was donated to the State in the first place for the establishment and maintenance of an institution of learning which this represents, and we fail to find the slightest indication of an intention on the part of the State to part with either the ownership of the property or control of the institution. It is true that the general assembly have created a body corporate as the most convenient mode of controlling the institution, its property, and affairs, but it will be observed that the State retains the power of appointing its trustees, and no doubt has power through agents other than the trustees to sell and dispose of the property of the institution, or they may at pleasure amend or even repeal the charter as public policy or the interest of the university may require. It will be obeerved that the persons appointed for the government of the university are created and called trustees. They derive all their powers from the State and they act for and on behalf of the State, and the power which conferred authority on them to act may withdraw or modify it at pleasure. Had the general assembly intended that the property might be sold for any purpose, some language indicating such intention no doubt would have been employed. In any view in which we have been able to consider the case we have been irresistably impelled to the conclusion that this real estate, although conveyed to the corporate body, belongs to and is under the entire control of the State when disposed to exercise the power, and, being property of the State, we have seen the constitution authorized its exemption from taxation, and the general assembly has exempted it. As an irresistible conclusion it follows that the judgment of the court below is erroneous, and it must be reversed." 76 Ill. (1875). Other decisions more or less applicable are Board of Education v. Greenbaum & Sons, 39 Ill. "The property of the normal university is not the property of the State, but is the property of the 'board of education of the State of Illinois,' and the only remedy a creditor has against it is by judgment and execution as in a case against an individual or other corporation not of a municipal character." Also 71 Ill., Thomas v. Board of Trustees of the Illinois Industrial University et al. "The Illinois Industrial University is a State institution and not subject to the mechanics-lien law," which is the converse of Board of Education v. Greenbaum in 39 Ill. and Board of Education v. Bakewell, 122 Ill., reaffirming 39 Ill.

INDIANA.

Constitution (1851), Article VIII: SECTION 1. Knowledge and learning generally diffused throughout a community being essential to the preservation of a free government, it shall be the duty of the general assembly to encourage by all suitable means, moral, intellectual, scientific, and agricultural improvement, and to provide by law for a general and uniform system of common schools, wherein tuition shall be without charge, and equally to all.

SEC. 7. All trust funds held by the State shall remain inviolate and be faithfully and exclusively applied to the purposes for which the trust was created.

[The following matter is taken from the Revised Statutes of Indiana, embracing all general laws in force October 1, 1901, by Frank A. Hauer, 2 vols., Rochester, N. Y., 1901.]

SEC. 4662. The State of Indiana accepts and claims the benefits of the provisions of the acts of Congress approved July 2, 1862, and April 14, 1864, and assents to all the conditions and provisions in said acts contained.

SEC. 4663. The governor of this State for the time being and [here are named four other persons] and their successors are created a body corporate, under the name of "The Trustees of the Indiana Agricultural College."

SEC. 4664. Said trustees shall, by the hand of their treasurer, claim and receive from the Secretary of the Interior the land scrip to which this State is entitled by the provisions of said acts of Congress; and under their direction said treasurer shall sell the same in such manner and at such times as shall be most advantageous to the State, and shall invest the proceeds thereof and any interest that may accrue thereon in the stocks of the United States or of this State yielding not less than 5 per cent per annum upon the par value of the stocks; and said principal and interest shall continue to be so invested until further provision shall be made by the general assembly of this State for fulfilling the requirements of said acts of Congress.

SEC. 4665. The donation offered by John Purdue, as set forth and communicated to the present general assembly in the message of the governor on the 16th day of

April, 1869, and the donations offered by the county of Tippecanoe, the trustees of the Battle Ground Institute, and the trustees of the Battle Ground Institute of the Methodist Episcopal Church, as set forth and communicated to the general assembly at its last session in the message of the governor of the 27th day of January, 1869, are hereby accepted by the State of Indiana.

SEC. 4666. The college contemplated and provided by the act of Congress approved July 2, 1862, is hereby located in Tippecanoe County, at such point as may be determined before the 1st day of January, 1870, by a majority vote of the trustees of the Indiana Agricultural College, and the faith of the State is hereby pledged that the location so made shall be permanent.

SEC. 4667. In consideration of the said donation by John Purdue, amounting to $150,000, and of the further donation of 100 acres of land appurtenant to the institution, and on condition that the same be made effectual, the said institution, from and after the date of its location as aforesaid, shall have the name and style of "Purdue University," and the faith of the State is hereby pledged that the said name and style shall be the permanent designation of said institution without addition thereto or modifiation thereof.

SEC. 4668. From and after the date of the location made as aforesaid, the corporate name of the trustees of the Indiana Agricultural College shall be "The Trustees of Purdue University," and they shall take in charge, have, hold, possess, and manage, all and singular, the property and moneys comprehended in said donations, as also the funds derived from the sale of the land scrip donated under said acts of Congress, and the increase thereof, and all moneys or other property which may hereafter at any time be donated to and for the use of said institution. They shall also have power to organize said university in conformity with the purposes set forth in said acts of Congress, holding their meetings at such times and places as they may agree on, a majority of their number constituting a quorum. They shall provide a seal; have power to elect all professors and teachers, removable at their pleasure; fix and regulate compensations; do all acts necessary and expedient to put and keep said university in operation, and make all by-laws, rules, and regulations required or proper to conduct and manage the same.

SEC. 4669. In further consideration of his said donation John Purdue shall, from and after the taking effect of this act, be added as a member to said trustees of the Indiana Agricultural College, and he shall also be a member of said trustees of Purdue University. Should he at any time cease to be such member he shall be continued as an advisory member of said trustees; and he shall, during his lifetime, have visitorial power for the purpose of inspecting the property, real and personal, of said university, recommending to the trustees such measures as he may deem necessary for the good of the university, and investigating the financial concerns of the corporation. And he is authorized to make report of his examination, inspection, and inquiries to the general assembly at any session thereof.

SEC. 4670. This act shall be subject to future amendment or repeal, except so far as it provides for the acceptance of donations, the location of the college, the name and style thereof, and the rights and privileges conferred upon John Purdue.

SEC. 4671. On the 1st day of July, 1895, it shall be the duty of the governor of this State to appoint nine trustees for the Purdue University, two of whom shall be nominated by the State board of agriculture, one by the State board of horticulture, and six selected by the governor himself: *Provided*, That no more than two such trustees as may be selected by the governor himself shall be appointed from any one Congressional district: *And also provided*, That the first board so appointed shall include the three persons who at that time are the last nominees of the State board of agriculture and the State board of horticulture: *And also provided*, That the board of trustees now in office shall remain in office and perform all the duties thereof, as now required by law, until their successors are duly appointed and qualified, as provided in this act.

SEC. 4672. The persons so appointed shall constitute the board of trustees of said university, and shall hold their offices as follows: Three members of the first board shall hold their offices for two years, three for four years, and three for six years, and all until their successors are appointed; and at the expiration of the term of office of any of the members of the first or any subsequent board their successors shall be appointed in like manner, and with like nomination, and with like restrictions, as provided in this act, to hold their offices for the term of six years and until their successors are appointed.

SEC. 4673. If from any cause a vacancy occurs in said board the same shall be filled by appointment to fill the unexpired term, the person appointed to fill such

vacancy being nominated and appointed in the same manner as his predecessor had been at the commencement of such term.

SEC. 4674. Said trustees shall, at their first meeting after their appointment, and every two years thereafter, choose a president of said board, and they shall at such meeting and every two years thereafter, and whenever a vacancy occurs, elect by ballot a secretary and a treasurer, neither of whom shall be a member of the board, whose compensation shall be fixed by the trustees. The said treasurer shall give such bond to the State of Indiana, in any sum not less than $50,000, for the faithful execution of his trust, with sufficient sureties, as said trustees may require; and he shall receive, take charge of, and, under the direction of said trustees, manage all stocks and funds belonging to said university.

SEC. 4675. The board of commissioners of each county in this State may appoint, in such manner as it may choose, two students or scholars to Purdue University, who shall be entitled to enter, remain, and receive instruction in the same upon the same conditions, qualifications, and regulations prescribed for other applicants for admission to or scholars in said university: *Provided, however*, That every student admitted to said university by appointment by virtue of this act shall in no wise be chargeable for room, light, heat, water, tuition, janitor, or matriculation fees; and said student shall be entitled, in the order of admittance, to any room in the university then vacant and designed for the habitation or occupancy of a student, and such student so admitted shall have prior right to such room, subject to the rules of the university, over any student not appointed and admitted as aforesaid.

SEC. 4676. No more than two students at the same time from any one county shall be entitled to admittance to said university under the provisions of this act. But the board of commissioners of each county may, from time to time, appoint, as aforesaid, to any vacancy in its appointments.

SEC. 4677. The trustees of Purdue University, by their treasurer, are hereby authorized on or after the 1st day of April, 1881, to surrender to the treasurer of the State the bond executed to said university by the State of Indiana bearing date April 1, 1878, and payable in the sum of $200,000 on April 1, 1881, and a like bond executed by the State to said university dated April 1, 1879, and payable in the sum of $125,000 on April 1, 1884; and also to pay out of the proceeds of the United States 5 per cent bonds now held by the university (which said trustees are hereby empowered to sell) the sum of $15,000 to said treasurer of State, who thereupon is hereby directed to issue and deliver to said treasurer of Purdue University a nonnegotiable bond of the State of Indiana, to be signed by the governor and State treasurer and attested by the secretary of state and the State seal (the same to be dated April 1, 1881, and payable twenty years after its date to the trustees of Purdue University and their successors, with interest at the rate of 5 per cent per annum, payable quarterly after date of the bond), all for the use of Purdue University—said bonds surrendered and $15,000 paid constituting the endowment fund of said university derived from the gift of the United States.

SEC. 4677b. The trustees of Purdue University are hereby empowered to dedicate for public streets such strips of land extending through or along the grounds owned by said university as they may deem for the best interest of said university.

SEC. 4677c. Whenever any individual or individuals shall give, donate, or bequeath a sum of money or other valuable property for the purpose of establishing an institute of technology or other special schools in connection with Purdue University in and on the grounds of said university, the trustees of said university are hereby authorized and empowered to accept such donation, gifts, or bequest for and on behalf of the State of Indiana for such institute on such terms as may be agreed upon by and between such trustees and said donor or donors or devisor; and the said trustees are hereby authorized to establish, maintain, and operate such an institute in connection with Purdue University: *Provided*, That such institute of technology shall be freely open to students upon the same terms upon which Purdue University is open to students: *And provided*, That nothing in this act shall enable or authorize said trustees to make any contract with said donor or donors by which any debts shall be created beyond or above current legislative appropriations to the university: *And provided further*, That the terms upon which such donations are received and accepted shall not be effective unless the same are indorsed and approved by the governor of the State of Indiana.

SEC. 4677g. It is hereby made the duty of the committee of experimental agriculture and horticulture of the board of trustees, together with the faculty of the school of agriculture of Purdue University, to appoint, before November 1 of each year, suitable persons to hold in the several counties of this State, between the 1st day of November and the 1st day of April of each year, county institutes for the

purpose of giving to farmers and others interested therein instruction in agriculture, horticulture, agricultural chemistry, and economic entomology.

SEC. 4677h. Such institutes shall be held at such times and places as said committee and faculty may determine, and under such rules, regulations, and methods of instruction as they may prescribe: *Provided, however*, That such institutes shall be so conducted as to give those attending the results of the latests investigations in theoretical and practical agriculture and horticulture.

SEC. 4677i [sec. 4677g above]. For the purpose of carrying out the provisions of this act, paying the salaries of instructors and other necessary expenses, the sum of $10,000 is hereby appropriated, to be expended under the direction of the said committee of said board of trustees, and they shall annually report such expenditures and the purposes thereof to the governor.

SEC. 4894. Before any commercial fertilizer is sold or offered for sale in the State of Indiana the manufacturer, dealer, importer, agent, or party who causes it to be sold or offered for sale, by sample or otherwise, within the State of Indiana, shall file with the State chemist of Indiana a statement that he desires to offer for sale in Indiana material for manurial purposes, and also a certificate for registration stating the name of the manufacturer, the location of the principal office of the manufacturer, the name under which the fertilizer will be sold, the names of the towns in Indiana in which it will be offered for sale, and the minimum percentage of nitrogen, of potassium oxide (K_2O) soluble in water, of phosphoric acid (P_2O_5), and in the case of acidulated goods the minimum percentage of water, soluble and reverted phosphoric acid, and of insoluble phosphoric acid which the manufacturer or party offering the fertilizer for sale guarantees the fertilizer to contain.

SEC. 4898. The professor of agricultural chemistry at Purdue University is hereby constituted the State chemist of Indiana, and it shall be his duty to comply with the provisions of this act so far as they relate to him. * * * The State chemist is hereby empowered to prescribe and enforce such rules and regulations as he may deem necessary to carry into effect the full intent and meaning of this act.

Laws of 1895: SECTION 1. There shall be assessed and levied upon the taxable property of the State of Indiana in the year 1895 and in each year thereafter a tax of one-twentieth of a mill for the use of Purdue University. (March 8, 1895.)

[In a case decided by the supreme court of Indiana in 1882, known as "The State ex rel. Stallard v. White et al." (the faculty of Purdue University), 82 Ind., the court expressed itself in these terms: "Purdue University constitutes no part of our system of common schools, and has no direct connection with that system; but it is an institution of learning primarily endowed by Congress, and continued in existence very largely by appropriations made by the general assembly of this State. It is, therefore, an educational institution sustaining relations to the people at large analogous to those occupied by other public schools and colleges of the State, maintained at public expense, and one in which all the inhabitants of the State have a common interest. The general principles underlying the educational system of the State are, consequently, applicable to the government and control of Purdue University, and in the absence of express legislative provisions must be invoked in determining the powers which that institution may exercise. The fourth section of the act establishing Purdue University * * * confers no greater power on the trustees of Purdue University, as regards making rules and regulations for its conduct and management, than is usually conferred upon like officers of similar institutions, and leaves the question as to who are entitled to admission as students in that university to be determined by the principles underlying our general system of education, to which reference has already been made. The admission of students in a public educational institution is one thing, and the government and control of students after they are admitted, and have become subject to the jurisdiction of the institution, is quite another thing. The first rests upon well-established rules, either prescribed by law or sanctioned by usage, from which the right to admission is to be determined. The latter rests largely in the discretion of the officers in charge, the regulations prescribed for that purpose being subject to modification or change from time to time as supposed emergencies may arise. Having in view the various statutes in force in this State touching educational affairs, and the decisions of this court as well as of other courts bearing on the general subject, we think it may be safely said that every inhabitant of this State, of suitable age and attainments, and of reasonably good moral character, not afflicted with any contagious or loathsome disease, and not incapacitated by some mental or physical infirmity is entitled to admission as a student in the Purdue University. * * * [But] every student upon his admission into an institution of learning impliedly promises to submit to and to be governed by all the necessary and proper rules and regulations which had been or may thereafter be adopted for the government of the institution, and the exaction of any pledge or condition which requires him to promise more than that operates as a practical abridgment of his right of admission, and involves the exercise of a power greater than has been conferred upon either the trustees or the faculty of Purdue University. Regulations adopted by persons in charge of a school are analogous to by-laws enacted by municipal and other corporations, and both will be annulled by the courts when found to be unauthorized, against common right, or palpably unreasonable. In the first place the pledge tendered by the president to Hawley [in regard to disconnecting himself from a 'Greek fraternity'] was not shown to have been authorized by any previous general regulation adopted for the government of the university. As applicable to Hawley it was therefore special, exceptional, and apparently not demanded by any competent authority. In the next place it carried with it the implication that membership in the Sigma Chi fraternity might properly be treated as a disqualification for admission as a student in the university, a doctrine wholly inadmissible in its application to Purdue University, or to any of the other public schools or colleges of the State. If mere membership in any

of the so-called Greek fraternities may be treated as a disqualification for admission as a student in a public school, then membership in any other secret or similar society may be converted into a like disqualification, and in this way discriminations might be made against large classes of the inhabitants of the State, in utter disregard of the fundamental ideas upon which our entire educational system is based. At the request of the parties we have considered this case upon the theory that the regulation imposing disabilities on persons already members of the Greek fraternities was adopted by the express authority of the trustees, and our conclusion is that so much of the regulation No. 3 adopted by the faculty as may be construed to impose disabilities on persons already members of the Greek fraternities, and as requires a written pledge as a condition of admission, is both ultra vires and palpably unreasonable, and hence inoperative and void, and that the pledge tendered to Hawley was one which the faculty had no legal right to demand as a condition of his admission.

In the case of Marks, treasurer of Tippecanoe County, *v.* The Trustees of the Purdue University, it was decided that the location of a State educational institution within the boundaries of a minor civil division or jurisdiction of a State is a sufficient consideration for a grant of money by that minor civil division. 'Two objections are made,' said the court, 'to the action of the board of county commissioners, (1) that it requires local taxation for a State purpose, and (2) that it is a special law and not of uniform operation. The sole object and purpose of the donation was to secure the location of the college in Tippecanoe County. * * * It does not appear that the donation was made, as is argued by counsel for the appellant, to aid in the erection of a college building, which it was the duty of the State to erect and maintain. It may be conceded that the college or university is a State institution, and the question arises whether taxes may be assessed in a county to liquidate a debt contracted by the county in securing the location of such State institution in the county; for if not, the debt can not be valid. * * * While the university is a State institution, and every citizen will have an equal right under the same circumstances to avail himself of its privileges, still the location of it in a given county will doubtless confer upon that county many local benefits of pecuniary value. The parents of the county can send their sons and perhaps their daughters to the college to be educated at a less expenditure of time and money than would be incurred if it were situated at a more remote point in the State. The college, with its professors, tutors, attendants, and students, will probably diffuse much more money throughout the community than would otherwise circulate. It may also add to the educated and intelligent population of the place, and be the means of stimulating the industry and increasing the wealth and moral worth of the community, thereby enhancing the attractions of society and the value of property. * * * The fact that the college is a State institution can not change the character or nature of the obligation entered into by the county. Railroads are in some sense State institutions, and yet local subscriptions by counties and cities are upheld. Highways and streets are State institutions, to the proper use and enjoyment of which all citizens have an equal right; yet local taxation to improve and keep them in order is constantly maintained. The taxation being merely for a county purpose, the provisions of section 1 of article 10 are complied with if taxes are uniform throughout the county. It remains to inquire whether the law in question is objectionable as being local or special when a general law could have been made applicable: or in other words whether it violates section 22 of article 24 of the constitution. The subject of the law was local, and where such is the case the objection can not prevail. The college could have but one location, and but one county could have actually made a donation on condition of its location therein, as the condition could only have been performed as to one county. * * * Thus there are laws creating criminal courts in particular counties. * * * There can be no doubt on general principles that the location of the college in Tippecanoe County was a sufficient consideration to support the promise on the part of the county. The offer on the part of the county and its acceptance by the legislature, together with the location of the college in Tippecanoe County, constituted a valid and binding contract.'"]

IOWA.

Constitution (1857), Article 9. SECTION 1. The educational and school fund and lands shall be under the control and management of the general assembly of this State.

SEC. 3. The general assembly shall encourage by all suitable means the promotion of intellectual, scientific, moral, and agricultural improvement.

[The following matter is taken from the "Annotated Code of the State of Iowa, containing all the laws of a general nature enacted by the twenty-sixth general assembly at the extra session which adjourned July 2, 1897, published by the authority of the State. Des Moines, 1897.]

SEC. 2645. Legislative assent is given to the purposes of the various Congressional grants to the State for the endowment and support of a college of agriculture and mechanic arts, and an agricultural experiment station as a department thereof, upon the terms, conditions, and restrictions contained in all acts of Congress relating thereto, and the State assumes the duties, obligations, and responsibilities thereby imposed. All moneys appropriated by the State because of the obligations thus assumed, and all funds arising from said Congressional grants shall be invested or expended in accordance with the provision of such grant, for the use and support of said college located at Ames.

SEC. 2646. [Amended by ch. 76, acts of 1898, q. v.] The college shall be under the management and control of a board of trustees, but neither the president nor other officer or employee of the college and farm [at Ames] shall be eligible to membership therein.

SEC. 2647. The board of trustees shall have power: (1) To elect a chairman from their number, a president of the college, a secretary, a treasurer, professors and other teachers, superintendents of departments, steward, librarian, and such other officers as may be required for the transaction of its business, fix the salaries of officers and prescribe their duties, and appoint substitutes who shall discharge

the duties of such officers in their absence; (2) to manage and control the property of the college and farm, whether real or personal; (3) to arrange courses of study and practice, and to establish such professorships as may seem best to carry into effect the provisions of this chapter, and prescribe conditions of admission to the college; (4) to grant diplomas on the recommendation of the faculty to any students who have completed any of the courses of study prescribed by it or an equivalent thereof; (5) to remove any officer by a majority vote of all its members; (6) to direct the expenditure of all the appropriations the general assembly shall from time to time make to said college and farm, and the income arising from the Congressional grants and all other sources; (9) to keep a full and complete record of their proceedings, and to do such other acts as are necessary to carry out the intent and meaning of this chapter.

SEC. 2648. There shall be adopted and taught practical courses of study, embracing in their leading branches such as relate to agriculture and the mechanic arts, and such other branches as are best calculated to thoroughly educate the agricultural and industrial classes in the several pursuits and professions of life, including military tactics, and as a separate department, a school of mines, in which a complete course in theoretical and practical mining in its different branches shall be taught.

SEC. 2649. Tuition in the college herein established shall be forever free to pupils from the State over 16 years of age who have been residents of the State six months previous to their admission. Each county in this State shall have a prior right to tuition for three scholars from such county, the remainder, equal to the capacity of the college, shall be by the trustees distributed among the counties in proportion to the population subject to the above rule.

SEC. 2650. Annual meetings of the board of trustees shall be held at the college on the second Wednesday following the first Monday of November. The college year shall begin on the following Thursday and end on the second Wednesday after the first Monday of November of the following year.

SEC. 2651. The president shall manage and control the affairs of the college and farm, subject to such rules as may be prescribed by the board of trustees, and shall report to it at its annual meeting and at such other times as it directs all his acts as such president and the condition of the several departments, with his recommendations for the future management thereof.

SEC. 2652. The secretary shall keep a record of the proceedings of the board, and all documents and papers connected with the office, and conduct the correspondence. All acts of the board relating to the management, disposition, or use of the lands, funds, or other property of the institution shall be entered of record and show how each member voted upon each proposition. He shall also prepare the biennial report of the board to the governor, and report to the executive council annually and at such other times as may be required by it all loans made since his last report to it; and also, to the board, all loans made since its last meeting, unless otherwise ordered; but such reports must be made at least quarterly. Upon the election of any person to any office under the board, he shall give notice thereof to the secretary of state. He shall also keep an account with the treasurer, charging him with all money paid him and crediting him with the amounts paid upon the order of the board of audit, which account shall be balanced monthly.

SEC. 2653. The president and secretary shall constitute an auditing committee which, subject to the rules of the board of trustees, shall examine and audit all bills presented for payment for which an appropriation has been made, and a minute of such auditing shall be indorsed upon each bill and signed by both members of such committee. No bill shall be paid without such joint indorsement, unless allowed by the board. It shall examine the treasurer's books and vouchers monthly, and at such other times as it shall consider necessary, and all its proceedings shall be reported by the secretary to the board at its next meeting.

SEC. 2654. The treasurer shall receive and keep all notes and other evidence of indebtedness, contracts, and money arising from the income of the Congressional grant, appropriations of the general assembly, sales of the products of the farm, payments by students, and all other sources, and pay out the same upon bills for which appropriation has been made when audited as above prescribed, and retain such bills with receipt for their payment as his vouchers. He shall keep an accurate account of the revenue and expenditures of the college from all sources, so that the receipts and disbursements of each of its several departments shall be apparent at all times, and report to the board of trustees at their annual meeting and at such other times as they shall direct. He shall also execute duplicate receipts of all money received by him, specifying the source and the fund to which

it belongs, one of which must be filed with the secretary, and no receipt shall be valid unless the duplicate is so filed. He shall be elected annually, and give bond in double the highest amount of money likely to be in his hands at any one time, which bond shall be filed with the secretary of state. He may appoint a deputy, who shall receive such compensation as the board of trustees shall fix, and for whose acts he shall be responsible on his official bond.

SEC. 2655. The president and secretary shall have their offices in, and the deputy treasurer shall reside at, the college.

SEC. 2656. The board of trustees may sell the lands granted to the State by act of Congress and any lands acquired by purchase or otherwise for cash or upon a partial credit, not exceeding ten years, at such price as shall be fixed by the board, deferred payments to draw interest at the rate of 8 per cent per annum, payable annually in advance. Upon a failure to pay the annual interest or principal within sixty days after it becomes due and sixty days after notice thereof shall have been given in writing, by mail or otherwise, by the board or the land agent of the college to the holder of the lease, such holder shall forfeit all claim to said land and the improvements made thereon and all sums paid on said contract, unless an extension of time has been or is granted by said board.

[A case, in which was called in question the right of the legislature to empower the corporation it had created to carry out the purpose of the act of July 2, 1862, to act as a business agent in selling the lands given by the act, was decided by the supreme court of Iowa in 1870. (28 Iowa, p. 500.) The court said: "In accordance with an act of the legislature the trustees of the agricultural college leased a tract of college land to plaintiff, with the privilege to plaintiff of purchasing the land at a stipulated price at the end of the term: and he made the advance payment required by the law, which law authorized the trustees to insert a clause of forfeiture in the lease, which was inserted, stipulating that the trustees could declare the contract forfeited if a payment of rent or of interest should be in arrears for sixty days. The plaintiff failed to pay as stipulated for sixty days, and the trustees then declared the contract forfeited and sold the land to one Connor. The plaintiff, Smith, after forfeiture and sale, tenders the rent or interest in arrears and asks that the lease and sale to Connor be set aside. The only question that can be raised in this case is the power of the legislature to authorize a contract as above stated. The land belonging to the State, the legislature could fix and enforce the terms and conditions of a sale." In 69 Iowa there is a case (Chicago, Milwaukee and St. Paul Railway Company *v.* Bean), where the "Iowa Agricultural College and its lessees" were made parties (and are affirmed as parties by the supreme court) to condemnation proceedings by the railroad corporation. There is still another decision indirectly affirming the case in 28 Iowa. The syllabus, as far as it regards the agricultural college, reads: "Although agricultural college lands are required to be sold on time, in order to provide a fund for the college arising from the interest on the purchase price, the college may nevertheless receive the principal, with a bonus, when its interests will be promoted thereby; and where it does receive the principal, it will be presumed that its officers have acted rightly for the best interests of the college."]

SEC. 2657. It may lease such lands for a term not exceeding ten years, at an annual rental equal to 8 per cent per annum upon the appraised value of the tract, payable annually in advance, granting lessee, his heirs, or assigns, the privilege of purchasing, at the expiration of the lease, at the appraised value stated therein, or it may lease said lands without granting the privilege of purchase. A lessee failing to pay the annual rent or interest within sixty days after it becomes due and sixty days after notice thereof shall have been given in writing, by mail or otherwise, by the board or the land agent of the college to the holder of the lease, shall forfeit the same, with the interest paid thereon and all improvements made.

SEC. 2658. It may, at its option, cause to be received the purchase price of the land sold or leased, before the same becomes due, upon such terms and conditions of payment as it may regard for the best interests of the institution, and may renew leases as they expire.

SEC. 2659. After any leasehold interest has been sold for delinquent taxes, the holder of the tax-sale certificate may pay any interest or principal due by the terms of the lease, or do any other act necessary to prevent a forfeiture of the lease, and the proper voucher for such payment shall be filed with the auditor of the county where the land is situated.

SEC. 2660. Where any leasehold interest has been sold for delinquent taxes and a treasurer's deed issued thereon, the grantee therein, his heirs, or assigns, shall be entitled to purchase the land so conveyed, at the price and on the terms specified in the lease, and receive a patent therefor. If such lease expires before the holder of the tax-sale certificate will be entitled to a treasurer's deed, such certificate holder may pay the amount required by the terms thereof to acquire the title thereto and receive a conveyance of the same.

SEC. 2661. The right of the tax-sale purchaser or his assigns to pay any amount due by virtue of any lease shall be shown by a copy of the certificate of tax sale or treasurer's deed thereunder, duly certified by the officer executing the same, and if no tax deed has been issued the auditor shall certify that redemption from

the sale has not been made. Such copy and certificate shall be filed with the secretary of the board of trustees and become a part of the records of his office.

SEC. 2662. The board of trustees shall certify to the auditor of each county in which leased college lands are situated, on or before the 5th day of January of each year, a list thereof subject to taxation, with the name of each lessee, the date and terms of each lease, the amounts to be paid thereon, and the dates of payment.

SEC. 2663. All leases and renewals thereof shall be assignable, and the owner, whether holding one or more leases or renewals, who has made the annual payments therein required, shall be entitled to all the benefits thereof and have the privilege of purchasing the tract or tracts of lands as provided therein, and upon the payment of such purchase money shall be entitled to a patent for the land described in said lease or leases.

SEC. 2664. When a sale is made of any lands the president shall execute to the purchaser a certificate, countersigned by the secretary, stating the fact of purchase, the name of the purchaser, the description of the land, and its fixed value. Upon payment of the purchase price to the State treasurer, the buyer or his assigns will be entitled to a patent or patents therefor, and upon presentation of such certificate to the secretary of state, with the receipt of the treasurer showing full payment, stating the amount, he shall issue to the purchaser, or his assigns, one or more patents for the tract or tracts of land therein described, signed by the governor and secretary of state, as other patents or deeds of land conveyed by the State, which shall vest in the purchaser all the right and title and interest of the State and of said college therein.

SEC. 2665. The principal of all money so collected must be paid to and held by the treasurer of state, and shall be drawn out only for the purpose of investment, upon the order of the board of trustees. The interest or rental collected must be paid at the end of each month to the treasurer of the college, and the agent collecting the same must at the same time file with the secretary of the board of trustees an itemized report of the amount collected.

SEC. 2666. The board shall manage and invest the endowment fund, which may be done in the bonds of the United States or this State or in some other safe bonds yielding not less than 5 per cent on the par value thereof; but the proposed investment shall be submitted to and approved by the executive council before being consummated.

SEC. 2667. It may loan said funds upon approved real estate security, subject to the following regulations: (1) Each loan shall be for a term not exceeding ten years, at a rate of interest to be fixed by said board, not less than 6 per cent per annum, payable annually; (2) each loan shall be secured by a mortgage paramount to all other liens upon improved farm lands in the State, the loan not to exceed 50 per cent of the cash value thereof, exclusive of buildings; (3) principal and interest shall be payable to the order of the board at the office of the State treasurer, the notes and mortgages to provide for the payment by the borrower of all expenses, attorney's fees, and costs incurred in collecting the same; (4) a register containing a complete abstract of each loan, and showing its actual condition, shall be kept by the secretary of said board, and be at all times open to inspection. The attorney-general, under the direction of the executive council, shall prepare the necessary blanks, forms, and instructions to carry into effect the provisions of this section and to keep such loans secure and unimpaired.

SEC. 2668. Subject to approval by the executive council, the board may appoint a financial agent to negotiate loans in accordance with the provisions of this chapter, and take charge of the foreclosure of mortgages and collections from delinquent debtors to said fund when so directed by it. Such agent shall hold his office during the pleasure of the board, and, before entering upon the discharge of his duties, take the oath required of civil officers, and give bond in a penal sum to be determined, and, with sureties, to be approved by said board, conditioned for the faithful performance of the duties of his agency and the payment into the State treasury of all funds which shall come into his hands in connection therewith. Such bond shall be in a sum at least double the amount of funds likely to come into his hands at any time, and be for the use and benefit of said college; and actions for breach of its conditions may be brought in the name of said board.

SEC. 2669. The financial agent shall receive a compensation, to be fixed by the board of trustees, not exceeding the sum of $1,200 annually, and $800 annually in addition for assistants and subagents and all necessary expenses connected with the discharge of his duties, to be paid as that of other officers out of the treasury of the State.

SEC. 2670. The foreclosure of any mortgage belonging to said college may be made in the name of the board of trustees, and in case of sale upon execution

under foreclosure, the premises may be bid off in the name of the college, and if a deed therefor is executed, the premises shall be held for the benefit of the college, and such lands shall be subject to lease or sale the same as its other lands.

SEC. 2671. Money collected from delinquents shall at once be paid into the State treasury, the principal of the fund to be there kept and drawn out for the purpose of investment as above provided, subject to such restrictions as may be imposed by the executive council. The State treasurer shall make monthly reports to the secretary of the board of trustees, showing all payments of principal and interest made, and remit to the treasurer of the college. All interest in his hands, as shown by such report, shall be loaned as other funds or used to defray the expenses of the college.

SEC. 2672. The board of trustees may appoint agents or do any other act necessary to carry out the provisions of the preceding sections where no such authority has already been given; but no agent shall be permitted to receive money until he has executed a bond in a sum double the amount he will be likely to receive, which bond, with the sureties, shall be approved by the board. Such agent shall make monthly itemized statements to the secretary of the board of the amount of money received by him, and at the same time transmit to the treasurer of the college all funds in his hands.

SEC. 2673. No person shall open, maintain, or conduct any shop or other place for the sale of wine, beer, or spirituous liquors, or sell the same at any place within a distance of 3 miles from the agricultural college and farm: *Provided*, That the same may be sold for sacramental, mechanical, medical, or culinary purposes; and any person violating the provisions of this section shall be punished, on conviction by any court of competent jurisdiction, by a fine not exceeding $50 for each offense, or by imprisonment in the county jail for a term not exceeding thirty days, or by both such fine and imprisonment.

SEC. 2609. The general assembly shall elect the following regents and trustees of the State institutions, all of whom on any one board shall not be of the same political party. * * * For the agricultural college, one trustee from each Congressional district who shall hold office for six years.

SEC. 2610. The term of each regent and trustee shall commence on the 1st day of May following the election; those holding for a term of six years shall be divided as nearly as may be into three equal classes, the terms of one class ending each two years; those for four years into two classes, the terms of one class ending each two years.

SEC. 2611. If the term of any regent or trustee now holding office expires prior to the 1st day of May in the even-numbered year, he shall hold until that time; terms of new regents or trustees shall commence on the expiration of the terms of the present incumbents ending on the 1st day of May of the even-numbered year.

SEC. 2612. Each regent, trustee, president, secretary, and treasurer of the university, and each State institution and all other officers thereof required to give bond, shall, before entering upon his duties, take the oath of office required of civil officers in the chapter upon qualifications for office, which shall be filed with the secretary of state or indorsed upon his bond.

SEC. 2613. Members of the general assembly shall be ineligible to the office of regent or trustee of any of the institutions of the State.

SEC. 2614. All requisitions upon the State treasurer for appropriations made for any State institution, unless otherwise provided, shall be presented quarterly on or after February 15, May 15, August 15, and November 15.

SEC. 2615. A majority of the regents or trustees shall constitute a quorum and may transact any business properly coming before them.

SEC. 2616. Each board of regents and trustees, when organized, may adopt such rules for its regulation and government and for the regulation and government of the institution in its charge, not inconsistent with law, as may seem just and proper.

SEC. 2617. Regents and trustees shall be allowed $4 for each day actually and necessarily engaged in the performance of official duties, not exceeding thirty days in any one year, and mileage at the same rate as is allowed members of the general assembly. The limitation of thirty days shall not apply to building committees, which shall not consist of more than three members, but such committees shall not charge for or receive compensation for more than sixty days in any one year.

SEC. 2618. All claims of members of boards of trustees or of regents for attendance upon meetings of the board for time actually and necessarily spent in official duties shall be itemized, showing the date of such service and the nature thereof, and shall be sworn to by the claimant and certified to by the president and secre-

tary of the board. It shall then be filed with auditor of state, who shall compute the mileage due each claimant by the nearest traveled route from his home to the place of meeting, and shall enter said mileage upon the claim, and, if it be found in due form of law, the auditor shall draw his warrant upon the treasurer of state for the amount of said attendance and mileage. No compensation shall be allowed any members of such boards except as provided in this chapter.

SEC. 2619. The secretary of state shall, upon request, furnish proper blanks prepared in accordance with this chapter for the purpose of making claims by members of boards of trustees of State institutions for compensation.

SEC. 2620. The auditor shall include in his reports to the governor the amount paid for such services and mileage, and to whom paid.

SEC. 2497. The geological survey of the State shall be under the direction of the geological board, consisting of the governor, the auditor of the State, and the presidents of the agricultural college, the State university, and the Iowa Academy of Sciences.

SEC. 178. Any contingent fund set apart to any office or officer to be expended for the State shall, as used, be entered in a proper book showing when, to whom, and for what purpose it was devoted, and receipts shall be taken therefor, preserved, and filed with the report hereinafter required. On or before the 1st day of November preceding each regular session of the general assembly the officers or persons having charge of the fund shall make report to the State auditor in writing, showing in detail each item of expenditure made, and he shall not be credited with any sum not paid out in the manner contemplated by the law making the appropriation, nor unless the report shall be accompanied with the proper vouchers and receipts. All funds not thus accounted for may be recovered by the State from the proper officer or person, with 50 per cent damages thereon, and the State auditor shall, in his report to the governor, make a detailed statement of the condition of each appropriation contemplated by this section.

SEC. 179. Every person appointed or elected a regent, trustee, manager, commissioner, or inspector, or a member of any board of regents, trustees, managers, commissioners, or inspectors, now or hereafter created or provided by law for the government, control, management, or inspection of any public building, improvement, or institution whatever, owned, controlled, or managed, in whole or in part, by or under the authority or direction of this State, shall, before entering upon the discharge of his duties as such regent, trustee, manager, commissioner, or inspector, take and subscribe an oath, in substance and form as follows: "I, ———, do solemnly swear that I will support the Constitution of the United States and of the State of Iowa; that I will honestly and faithfully discharge the duties of [my office] according to the laws that now are, or that may hereafter be, in force regulating said institutions, and prescribing the duties of regents, trustees, managers, commissioners, or inspectors thereof (as the case may be); that I will in all things conform to the directions contained in said law or laws, and that I will not, directly or indirectly, as such regent, trustee, manager, or commissioner, or inspector (as the case may be), make or enter into, or consent to, any contract or agreement, expressed or implied, whereby any greater sum of money shall be expended or agreed to be expended than is expressly authorized by law at the date of such contract or agreement.

SEC. 180. Oaths required by this chapter shall be filed in the office of the auditor of state, and he shall not draw any warrant on the State treasury for expenditures made or directed by any such officer until such oaths are so filed.

Acts and resolutions of twenty-seventh general assembly, chapter 76 (1898): SECTION 1. That section 2646 of the code of Iowa be, and the same is hereby, amended by inserting between the word "trustees" and the word "but," in the second line of said section, the words "of which the governor and superintendent of public instruction shall be members by virtue of office."

SEC. 2. That section 2650 of the code of Iowa be, and the same is hereby, amended by striking out all of said section up to and including the word "year" in the fifth line of said section, and inserting therein in lieu thereof the following: "Annual meetings of the board of trustees shall be held at the college during the month of June of each year; the chairman may call special meetings when found expedient. The fiscal college year shall begin on the 1st day of July, and end on the 30th day of June of each year. (Approved March 28, 1898.)

Ibid., chapter 135: That there is hereby appropriated to the State College of Agriculture and Mechanic Arts, out of any moneys in the State treasury not otherwise appropriated, the sum of $5,000, to be used for the purpose of building a carpenter shop on the grounds of the State College of Agriculture and Mechanic Arts, the same to be drawn from the State treasury on the certificate of the board of trustees of said college. (Approved April 6, 1898.)

Ibid., chapter 163: SECTION —. That the board of trustees of the State College of Agriculture and Mechanic Arts be, and are hereby, empowered to purchase not to exceed 40 acres of land adjoining the present college farm, and to pay therefor from the college endowment fund in accordance with the provisions of the original national grant.

SEC. —. When forty or more farmers of a county organize a farmers' county institute, with a president, secretary, treasurer, and an executive committee of not less than three outside of such officers, and hold an institute, remaining in session not less than two days in each year, which institute may be adjourned from time to time and place to place in said county, the county auditor, upon proof of such organization and such institute having been held, together with an itemized statement showing the manner in which the money herein appropriated has been expended, shall certify the same to the auditor of state, who shall remit to the treasurer of such county his warrant for not to exceed $50, and there is hereby appropriated out of the moneys in the State treasury, not otherwise appropriated, a sum not to exceed $50 annually for such institute work in each county. No officer of any such farmers' institute shall receive, directly or indirectly, any compensation from said State fund for services as such officer.

SEC. 1676. The money appropriated and paid into the county treasury shall be designated as a farmers' institute fund, and no warrant shall be drawn thereon, except by an order signed by a majority of the members of the executive committee. In case two or more organizations shall claim recognition as farmers' institutes in any county, a bill shall be audited by the board of supervisors, who shall divide said State fund as nearly as possible equitably, but in no case shall more than three institutes be held in one year in any county under the provisions of this chapter.

KANSAS.

Constitution (1859): SEC. 188. Provision shall be made by law for the establishment at some eligible and central point of a State university for the promotion of literature and the arts and sciences, including a normal and an agricultural department. All funds arising from the sale or rents of lands granted by the United States to the State for the support of a State university, and all other grants, donations, or bequests, either by the State or by individuals for such purpose, shall remain a perpetual fund, to be called the "university fund," the interest of which shall be appropriated to the support of the State university.

SEC. 184. No religious sect or sects shall ever control any part of the common school or university funds of the State. [Probably this covers the fund of 1862, which was received by the State subsequently to the adoption of the constitution. The State university is mentioned under "Article VI—Education," and not under "Article VII—Public institutions."]

[The following matter is taken from the "General Statutes of Kansas, 1899, being a compilation of all the laws of a general nature, including the session laws of 1899, annotated to and including Kansas Reports, volume 59, and Kansas Appeal Reports, volume 7, by C. F. W. Dassler." Topeka, Kans., 1900.]

SEC. 6523. That the provisions of the act of Congress approved July 2, 1862, are hereby accepted by the State of Kansas; and the State hereby agrees and obligates itself to comply with all the provisions of said act.

SEC. 6524. That upon the approval of this act by the governor, he is hereby instructed to transmit a certified copy of the same to the Secretary of State and the Secretary of the Interior of the United States.

SEC. 6525. Whereas the Congress of the United States, by an act approved July 2, 1862, granted to the State of Kansas, upon certain conditions, 90,000 acres of public lands for the endowment, support, and maintenance of a college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life; and whereas the State of Kansas by its legislature has expressed its acceptance of the benefits of the said act of Congress, and has agreed to fulfill the conditions therein contained: Therefore be it enacted, etc.,

SEC. 6526. That the college in the foregoing preamble mentioned is hereby permanently located at and upon a certain tract of land situated in the county of Riley and bounded and described as follows: Commencing, etc., * * * containing 100 acres: *Provided, however*, That the location of said college as aforesaid is upon this express condition: That the Bluemont Central College Association, in whom the title to said land is now vested, shall within six months from and after the

approval of the governor hereto, cede to the State of Kansas in fee simple the real estate above described, together with all buildings and appurtenances thereunto belonging, and shall within such time transfer and deliver to said State the apparatus and library belonging to said Bluemont Central College Association.

SEC. 6527. The governor of the State is hereby authorized to receive the title papers by which the foregoing mentioned property may be transferred to the State, and to cause the same to be duly recorded in the proper office, and to be deposited in the office of the auditor of State.

SEC. 6528. The college for the benefit of agriculture and the mechanic arts, which was located by an act of the legislature of the State of Kansas approved February 16, 1863, shall be known as the Kansas State Agricultural College.

SEC. 6529. The government of the college is vested in a board of seven regents, all of whom shall be appointed by the governor and confirmed by the senate, and whose term of office shall be four years. Five of said regents shall be appointed on or before the 1st day of April, 1897, one of whom shall hold his office until the 1st day of April, 1899, and four of whom shall hold their office until the 1st day of April, 1901. Two others shall be appointed on or before the 1st day of April, 1898, to hold office until the 1st day of April, 1899; and on or before the 1st day of April, 1899, and every four years thereafter, previous to the 1st day of April, three regents (and after the 1st day of April, 1897, four regents) shall be appointed by the governor and confirmed by the senate for a term of four years each, their terms expiring on the 1st of April. (Amended by an act passed in 1901 making the president of the college an ex officio member of the board of regents in place of one of the appointed members.)

SEC. 6530. No one connected with the college as professor, tutor, teacher, or employee shall be a regent.

SEC. 6531. The regents shall elect a president who shall be the chief officer of the college, the head of each department thereof, and secretary of the board of regents, and whose duties and powers, otherwise than as prescribed in this act, shall be prescribed by the board of regents.

SEC. 6532. The board of regents shall constitute the body corporate with the right as such to sue and be sued, to use a common seal and alter the same at pleasure.

[In connection with this section may be quoted the remarks of the Kansas supreme court: "They [the board] are a corporation having the entire control of all departments of the college—educational, financial, and administrative. They have the power to appoint and discharge the president and all the professors and teachers, and to fix and increase or diminish their several salaries. But with all these powers, they are not supreme nor irresponsible. They may 'sue and be sued,' just as the managing officers of other public corporations, such as cities, towns, counties, townships, and school districts may. * * * While the legislature unquestionably intended to confer upon the board of regents extensive powers, yet it did not intend to confer upon them the irresponsible power of trifling with other men's rights with impunity; and making the regents responsible for their acts does not in the least abridge their powers. It only tends to make them more cautious and circumspect in the exercise of their powers. But the plaintiff in error [i. e., the board of regents] claims in substance that the board has no legal power to make a contract to employ a president or a professor or a teacher for any particular period of time and therefore that an agreement to employ a president or a professor or a teacher for three months or for any other definite period of time would be an absolute nullity. Now we can not think that this is correct. We think that the board has the power to make a valid contract in advance, * * * and especially so where the board reserves the right to discharge such president, professor, or teacher at any time for misconduct. It would certainly be for the interest of the college that the board should have such power. No man of spirit, of self-respect, and of capability would want to hold an office or position at the whim or caprice of a body of men with whom he might have but little if any personal acquaintance. No man of spirit, of self-respect, and of capability would accept an office unless he felt that he was reasonably certain to hold the same for some reasonable period of time, * * * and generally men only of inferior talent could be found to accept it or to perform its functions with such a precarious tenure, and even then a higher rate of compensation would be required than where the tenure is more stable and certain." (The Board of Regents of the Kansas State Agricultural College *v.* Mudge, 21 Kans., pp. 629-630.)]

SEC. 6533. The regents shall have power to enact ordinances, by-laws, and regulations for the government of said college, to elect a president, to fix, increase, and diminish the regular number of professors and teachers, and to appoint the same, and to determine the amount of their salaries. They shall have power to remove the president and any professor or teacher whenever the interest of the college shall require.

SEC. 6534. The college shall consist of four departments: (1) The department of agriculture, (2) mechanic arts, (3) military science and tactics, (4) literature and science.

SEC. 6535. The immediate government of the several departments shall be intrusted to the president and the respective professors and teachers, but the regents shall have power to regulate the course of instruction and to prescribe, under the advice of the faculty, the books and authorities to be used in the several

departments: also to confer such degrees and grant such diplomas as are conferred by institutions of the highest grade.

SEC. 6536. The college shall be open to all persons, under such regulations as may be prescribed by the regents: *Provided*, That no student shall be refused admittance to this college simply because he has been expelled from some other college.

SEC. 6537. The board of regents shall make an exhibit of the affairs of the college in each year to the superintendent of public instruction, setting forth the condition of the college, the amount of receipts and expenditures, the number of professors and teachers and other officers, and the compensation of each; the number of students in the several departments and in the different classes, the books of instruction used, an estimate of the expenses of the ensuing year, a full transcript of the journal of the proceedings for the year, together with such other information and suggestions as they may deem important or the superintendent of public instruction may require to embrace in his report, which shall be reported by the superintendent of public instruction to the legislature in his annual report.

SEC. 6538. The board of regents shall report annually the progress of said college, recording any improvements and experiments made, with their cost and results, and such other matters, including State and industrial and economical statistics, as may be supposed useful; one copy of which shall be transmitted by mail, free, to all the other colleges which may be endowed under the provisions of the act of Congress approved July 2, 1862, and also one copy to the Secretary of the Interior.

SEC. 6539. A board of visitors to consist of three persons shall be appointed by the governor, to hold their offices severally for one, two, or three years, but their successors shall hold their office for three years. It shall be their duty to make a personal examination into the state and condition of the college in all its departments and branches once at least in each year, and report the result to the superintendent of public instruction, suggesting such improvements as they may deem important, which report shall be embodied in the report of the superintendent.

SEC. 6540. The regents shall have power to appoint a secretary, librarian, treasurer, and such other officers as the interests of the college may require, who shall hold their office at the pleasure of the board and shall receive such compensation as the board may prescribe.

SEC. 6541. The board of regents shall have the general supervision of the college and the direction and control of all expenditures.

SEC. 6542. It shall be the duty of the board of regents at their earliest convenience to secure a collection of specimens in mineralogy, geology, zoology, botany, and other specimens pertaining to natural history, and whenever a geological survey of the State may be made a complete set of specimens collected shall be deposited in the cabinet of the college. The said board shall make provision for increasing and preserving the library and apparatus belonging to the said college, and the apparatus and library that may be transferred to the State by the Bluemont Central College Association.

SEC. 6543. The first meeting of the board of regents shall be called by the superintendent of public instruction as soon as may be after the fulfillment by the Bluemont Central College Association of an act entitled "An act to locate and establish a college for the benefit of agriculture and the mechanic arts," approved February 16, 1863; but all succeeding meetings shall be called in such manner as the said board may prescribe, and shall be held at the college building and at least once annually.

SEC. 6544. A majority of the board of regents shall constitute a quorum to do business.

SEC. 6545. The 90,000 acres of land granted to the State of Kansas by Congress to endow a college for the benefit of agriculture and the mechanic arts shall be used solely for the endowment of said Kansas State Agricultural College and for no other purpose whatever, and the interest on the fund arising from the sale of said lands shall be used as the board of regents may determine for maintenance, support, and development of the said agricultural college; but the principal or the money arising from the sale of said lands shall be invested according to law.

[In a case known as Board of Regents of the Kansas State Agricultural College *v.* Hamilton, treasurer of Saline County (28 Kans.), the court said: "The controlling question in matters of taxation is who in fact owns the property and not where rests the mere legal title. . . . The question then is who really and equitably owned this land? Unhesitatingly we affirm the State. The Kansas State Agricultural College is a State institution; it is absolutely and exclusively under the control of the State; its property belongs to the State. It is true that to-day the State has created the board of regents into a body corporate, but to-morrow it may set aside this body corporate and place the control of the properties in any other board or organization. No private rights intervene. It is purely and solely a matter of State and public control. The State

created a body corporate, but why we can not say. In regard to certain State institutions, why it did the same—as, for instance, in the case of the State University, why it omitted to do so in the case of the normal school, in the case of the State penitentiary—we do not know. . . . It is enough for the purposes of this case to know that the State is the absolute owner and controller of the institution and its properties, and the mere manner in which it executes the trusts reposed in it by the act of Congress or disposes of the public property vested in it, is for the purposes of this case entirely immaterial. . . . This agricultural college is . . . a mere instrument created directly by the State and is the one by which it manages the properties conveyed to it by the United States. . . . Therefore our conclusion is that this real estate belonging absolutely to the agricultural college . . . is exempt from taxation" (pp. 379-380).[a]

[In a case of 1875, Oswalt *v.* Hallowell, treasurer of Washington County, the court said: "But do the laws of Kansas make this kind of land (i. e., agricultural land held under contracts purchase) held in this manner taxable? Now there can be no question as to the power of the State to tax all land within its borders not belonging to the United States or to Indians, even though the State may own the land itself. The only question, then, is whether the State has attempted to make these lands taxable. The first section of the tax law provides that 'all property in this State, real and personal, not expressly exempted therefrom shall be subject to taxation.' Now, are these laws [lands?] expressly exempted from taxation? We think not. . . . The land in question is not 'used exclusively for State purposes' . . . and it does not belong to the State exclusively" (15 Kans., p. 156-157). The court adhered to this in 29 Kans., Board of Commissioners *v.* Baldwin. In Stahl, Treasurer of Lyon County, *v.* Kansas Educational Association of the Methodist Episcopal Church (1895), it was held that private corporation is liable to be taxed "when its real estate is rented to a tenant or its funds invested in other property for profit or loaned at interest" (p. 549, 54 Kans.).]

SEC. 6546. The board of regents of the State Agricultural College are hereby authorized and directed to sell as soon as practicable and in the manner hereinafter provided the public lands granted by act of Congress approved July 2, 1862, to the State of Kansas, for the benefit of agriculture and the mechanic arts.

SEC. 6547. The said board of regents shall sell any portion of lands mentioned in the preceding section at a price not less than $3 per acre, for cash at the time of sale or upon the following conditions of credit, when deemed by them most conducive to the interests of said college, to wit: In eight equal annual installments, with 10 per cent interest on each installment, payable annually, the first installment to be paid at the date of purchase. The said board of regents are hereby authorized and directed to employ an agent or agents to sell said lands, and his rate of compensation with other expenses of sale shall not exceed 3 per cent upon the amount received from the sale of said lands, and he shall also have power to execute to the purchaser in the name of the State of Kansas all receipts for purchase money and title bonds necessary to be given in the sale of said lands: *Provided*, That on all timbered lands half of the purchase money shall be paid in advance, and also that a purchaser may at any time pay all arrearages and receive his patent: *Provided, however*, That all expenses of management and superintendence of said lands and all the expenses attending the sale thereof and the investment of the proceeds which may be received therefrom shall be paid by the State, and the auditor of State is hereby authorized to audit all expenses provided for in this act.

SEC. 6548. That the board of regents of the Kansas State Agricultural College is hereby authorized, in view of the fact that all the lands granted for endowment of said college have been sold, to empower the secretary of said board of regents to execute new contracts, subject to approval by said board of regents, for any lands returned upon forfeiture of contract, without the appointment of a land agent as provided by law, and the officer so empowered shall be required to make the settlements and statements required of the land agent by law.

SEC. 6550. The said agent or agents shall, before he or they enter upon the duties of the office, execute to the State of Kansas a bond in the sum of $40,000; said bond to be approved by the governor and filed in the office of the secretary of state.

SEC. 6551. The president and secretary of the board of regents or their agents, shall give receipts to the purchaser of said lands for the payment of all installments and interest due thereon; and when the last installment upon any one purchase has been paid, the purchaser, his heirs or assigns, shall be entitled to a patent for the land so purchased, from the governor, under the great seal of the State, which patent shall confer upon the grantee a title in fee simple for the lands described in said patent.

SEC. 6552. The treasurer of the said agricultural college shall, before he receives from the board of regents the order for the funds in the hands of the State treasurer, execute and give a bond with five or more securities, to be approved by the board of regents, in double the amount of the funds of the said agricultural college, as near as the same can be ascertained, which will come into his hands as treasurer during his term of office, payable to the Kansas State Agricultural College, and con-

[a] The constitution of Kansas (art. 11) provides that the legislature shall provide for a uniform and equal rate of assessment and taxation, but all property used exclusively for State, county, municipal, literary, educational, scientific, religious, benevolent, and charitable purposes, and personal property to the amount of at least $200 for each family shall be exempted from taxation.

ditioned for the faithful discharge of his duties as treasurer of the said college. He shall keep an accurate account in a book kept for that purpose of all moneys, notes, bonds, or other evidences of indebtedness coming into his hands as treasurer, and shall keep a separate account of the endowment and interest funds; he shall pay out no moneys except upon the order of the board of regents or the loan commissioner.

SEC. 6553. The board of regents may, if they deem it for the interest of said agricultural college, direct the treasurer to sell or dispose of any or all bonds or other evidences of indebtedness belonging to the said college, on such terms as they may prescribe, and the land commissioner shall, under their direction, reinvest the proceeds as provided by this act.

SEC. 6554. Any person failing to pay the purchase money for any of the lands purchased from the Kansas State Agricultural College, or any installment of the same, shall forfeit all right to the land from the time of such failure of payment, and the board of regents shall proceed to eject such person from said land, if in possession.

SEC. 6555. The governor, treasurer, and secretary of the State of Kansas are hereby authorized and directed to issue, on or before the 1st day of April, 1866, the bonds of the State of Kansas for the sum of $7,500, the same to be negotiated by the governor, and the proceeds to be paid into the State treasury; said bonds, with coupons attached, shall run five years from their date, bearing interest at the rate of 10 per cent per annum, payable semiannually at the office of the treasurer of State, and shall not be sold below their par value.

SEC. 6556. The proceeds of the sale of said bonds shall be applied as follows, to wit: The sum of $5,500 to pay arrearages incurred in conducting the Kansas State Agricultural College, and to defray the current expenses of said college for the year 1866, and the auditor of State is hereby authorized to draw his warrant on the State treasurer in favor of the treasurer of the board of regents upon an order of said board.

SEC. 6557. The amount to be applied out of the income referred to in section 5 of this act, to meet the current expenses of said college, shall not exceed $4,000 per annum as long as the principal and interest on said bonds herein provided to be issued remains unpaid; and all moneys realized from the accruing interest on said deferred payments and securities over $4,000 per annum shall be by the State treasurer applied in liquidation of said bonds, on the 1st day of January of each year, until the whole of said loan secured by the bonds herein provided shall have been paid: *Provided, however*, That if a sufficient fund is raised from the sale of said lands as will afford a surplus income after paying the bonds herein provided to be issued, and interest thereon as the same becomes due, a larger sum to defray the current expenses of said college may be appropriated, if the board of regents in their judgment may deem it necessary.

SEC. 6558. The treasurer of the board of regents shall audit all accounts of said agent or agents for the sale of said lands and all other accounts against said college, and the auditor of state shall audit all the accounts of said treasurer of said board of regents relating to said lands, and the sale thereof, and to the current expenses of said college.

SEC. 6559. All moneys, bonds, mortgages, promissory notes, or other evidences of indebtedness due or belonging to the endowment fund of the State Agricultural College now in the hands of the treasurer, loan agent, or land agent of said State Agricultural College are hereby ordered turned over to the treasurer of the State of Kansas on or before April 1, 1883. The officer or officers delivering such securities shall take receipts therefor in triplicate. One of said receipts shall be filed with the auditor of state, one with the board of regents, and one to be retained by the officer making such payment. The treasurer of state shall be responsible on his official bond for all sums of money, securities, bonds, or other valuable things which may come into his hands by virtue of this act, and shall at the close of each month make to the secretary of the board of regents a detailed statement of collections and disbursements and the condition of such funds belonging to said college.

SEC. 6560. The board of regents shall appoint a loan commissioner, whose duty it shall be to make investments of the funds belonging to the said Agricultural College. The board of regents shall adopt rules and regulations under the provisions of this act, prescribing the kind and manner in which all bonds and investments shall be made by said loan commissioner. He shall keep an accurate account in a book kept for that purpose of all loans and investments. He shall draw his warrant upon the treasurer of state for such sums as he may loan or invest, specifying in the warrant to whom the same is payable. The president of the college and secretary of the board of regents of the Agricultural

College shall approve all loans and investments made, and with the loan commissioner shall sign all warrants issued on the State treasurer. The loan commissioner shall draw no warrant except for loans and investments, and separate warrants shall be drawn for each loan or investment. All loans or investments shall be made in the name of the Kansas State Agricultural College, and all principal and interest shall be payable at the office of the State treasurer.

SEC. 6561. The interest accruing on the investment of the State Agricultural College funds and the interest paid upon sales of Agricultural College lands shall be paid over to the treasurer of the State Agricultural College by the State treasurer upon the warrant of the president of the board of regents, attested by the secretary.

SEC. 6562. The agent for the sale of State Agricultural College lands shall, on or before the 5th day of each month, pay over to the State treasurer all money received by him on account of sales of said lands or collections on prior sales for the month preceding. At the time of making such payment said land agent shall deliver to the auditor of state, and also to the secretary of the board of regents, a detailed statement, duly certified under his hand, showing the number of acres and descriptions of the lands sold, by whom purchased, and the price per acre, and all collections on prior sales for the months upon which payments are made to the State treasurer.

KENTUCKY.

Constitution (1891): SEC. 184. No sum shall be raised or collected for education other than in common schools until the question of taxation is submitted to the legal voters and the majority of the votes cast at said election shall be in favor of such taxation: *Provided*, The tax now imposed for educational purposes, and for the endowment and maintenance of the Agricultural and Mechanical College, shall remain until changed by law.

SEC. 189. No portion of any fund or tax now existing, or that may hereafter be raised or levied for educational purposes, shall be appropriated to or used by or in aid of any church, sectarian or denominational school.

[In the cases Higgins *v.* Prater, sheriff, and Hill *v.* Hamilton, sheriff (91 Ky.), the Kentucky court of appeals said: "The question presented in these cases is not only an important but a delicate one. Delicate because we must determine whether a legislative act is constitutional and important, because it relates to education, which has been said to be the birthright of every child born in a republic. Its consideration has been delayed because of repeated legislative agitation upon the subject; but as a convention is now in session, framing a proposed organic law for the State, it is proper that it should be decided. Our legislature in 1880 passed a statute imposing a tax of one-half a cent on each $100 in value of taxable property in the State for that year, and for each subsequent year, for the benefit of the Agricultural and Mechanical College of Kentucky, which is an educational institution incorporated by the law of the State, and under its control. The tax is a small one. The owner of $10,000 worth of property pays but 50 cents a year. If unconstitutional, however, then it is oppressive, however small. If the college can fairly be considered a part of our common-school system, then this is an end of the controversy. It is unsectarian in character. Its design is to furnish at a cheap rate of tuition a practical and liberal education to the rich and poor alike. * * * It has a normal department and is subject to the control of the State board of trustees. Each legislative district of the State can send one student per year, who may take the entire collegiate course free of charge for tuition, and it may in like manner send for one year not more than four persons, in the discretion of the board of control, who are or intend to be teachers. Notwithstanding all this, however, we think it clear, in the light of the proceedings of the convention which framed our constitution, and legislation prior and subsequent thereto, as well as from the opinions of this court in the case of Halbert *v.* Sparks, 9 Bush. (72 Ky., p. 202), and Collins *v.* Henderson, etc., 11 Bush. (74 Ky., defining what was meant by 'common schools'), that this institution can not be regarded as a part of our common-school system. In fact, this is virtually conceded in argument; and this brings us to the consideration of the highly important question, which is, *res integra*, whether the legislature can constitutionally aid by taxation any educational institution whatever, other than common schools. It is plain that it is not expressly forbidden by the article of the constitution above cited.

"An implied prohibition is, however, claimed. * * * It is urged that * * * the organic law has confined the use of any money raised by taxation to the support of common schools. In determining this question this court can not consider whether the result may cripple rival institutions or possibly affect the future prosperity of our common-school system. These are matters of expediency that address themselves to the lawmaker and not to the courts. * * * [Now] does the constitution impliedly forbid the raising of any public money by taxation for any educational purposes, save the general common-school fund of the State? Common-school education is the subject of the article. No other sort of education is named. The original of the school fund named in the constitution came from the General Government. In 1836 it distributed among the States a large surplus of money, this State's portion being nearly $1,500,000. It should, perhaps, in view of the understanding with which the donation was made, have set apart the entire sum for the support of a general system of education. It did so, however, in 1837 to the extent of $1,000,000. In 1838 the legislature reduced the sum to $850,000, for which sum State bonds, bearing interest payable semiannually, were issued to the board of education. Those in authority regarded this as a debt due by the State to itself, therefore the payment of interest was neglected, to which default the legislature by its action was a party. The money thus donated to the State was in the main used in the construction of internal improvements. In 1845 the legislature directed the board of education to surrender the bonds that had been executed to it to the governor, with directions that he burn them, lists thereof being kept, and this was done. The friends of common-school education became alarmed. In 1848 the legislature

passed an act which recognized the sacredness of the original debt, directed the execution of a bond to the board of education for its unpaid interest, amounting then to nearly $300,000, but made it payable at the pleasure of the legislature, and ordered a vote of the people as to whether a tax of 2 cents on the $100 of taxable property should be levied "for the purpose of establishing more permanently a common-school system in the State." It carried by a very large majority. The convention that framed our present constitution (that of 1850) met the following year.

"The public mind was still excited in regard to the then recent invasion of the common-school fund. This was the mischief to be remedied, and it was to be done by placing the bond beyond the caprice of future legislatures. It then existed only by legislative sufferance, as neither of the first two constitutions of the State contained any provisions as to education. Prior to 1849, we do not think, in the light of all historical information at hand, it can fairly be said there was any conflict between the friends of higher and lower education. If so, it is likely it would have been carried into the convention of that year, and there is no trace of it. The debates in that body show that this was not the question before it. It was never named. This silence is significant in the consideration of this case. The purpose was, in the language of one of the leading members of the convention, 'to place the common-school fund beyond legislative control.' Some favored a future tax for it by constitutional guarantee, while others, although in favor of making the fund inviolate, desired to leave future taxation to the legislature. This was the main ground of difference. The last view prevailed * * * and the members generally used the terms 'educational purposes' and 'common-school purposes' as synonymous terms. Hence, the court decided that the constitution of 1850 was merely confining money raised by taxation for common schools to the support of common schools, but was not interdicting the legislature from laying taxes for higher education. In 14 Bush. (77 Ky.) it was decided, in Auditor (of State) *v.* Kalland, etc. (p. 153), that 'The general assembly has no power thus to abdicate its control over the fund (common school) and abandon to the county courts, to be performed or not at their pleasure, the duty and power which the constitution has imposed upon and vested alone in the legislature.'"]

SEC. 170. There shall be exempt from taxation public property used for public purposes; places actually used for religious worship, with the grounds attached thereto and used and appurtenant to the house of worship, not exceeding one-half acre in cities or towns and not exceeding 2 acres in the country; places of burial not held for private or corporate profit, institutions of purely public charity, and institutions of education not used or employed for gain by any person or corporation, and the income of which is devoted solely to the cause of education; public libraries, their endowments, and the income of such property as is used exclusively for their maintenance; all parsonages or residences owned by any religious society and occupied as a home, and for no other purpose, by the minister of any religion, with not exceeding one-half acre of ground in towns and cities and 2 acres of ground in the country appurtenant thereto.

[The following matter is taken from "The Kentucky Statutes, containing all general laws, 2d ed., prepared by John D. Carroll." Louisville, 1899.]

Kentucky Statutes: SEC. 15. The government, administration, and control of the Agricultural and Mechanical College of Kentucky is hereby vested in a board of trustees, constituted and appointed as follows: (1) His excellency the governor of Kentucky, who shall be ex officio chairman thereof; (2) fifteen men, discreet, intelligent, and prudent, who shall be nominated by the governor of Kentucky, by and with the advice and consent of the senate. They shall hold office for six years, five retiring and five being appointed at each regular session of the general assembly. Said nominations shall be made within fifteen days after the legislature convenes. Said trustees shall be appointed and distributed as follows, namely, one from each Congressional district outside of the Congressional district in which Lexington is situated, and the remainder from the latter district; but no more than three trustees shall be appointed from the county of Fayette: *Provided*, That no trustee now serving under an appointment previously made shall be displaced by the operation of this act before his term of service shall expire; (3) the president of the college shall be ex officio a member of the board of trustees.

SEC. 16. The board of trustees, when appointed and qualified, shall be a body corporate, under the corporate name of the Agricultural and Mechanical College of Kentucky, and as a corporation shall have power to sue and be sued, implead and be impleaded, contract and be contracted with, and possess all the immunities, rights, privileges, and franchises usually attaching to the governing bodies of educational institutions. They shall have power to receive, hold, and administer, on behalf of the institution whose government, administration, and control is committed to them, all revenues accruing from all existing or future endowments, appropriations, or bequests, by whomsoever made, subject to the conditions attaching thereto; to receive, administer, and apply, for and on behalf of said college, all moneys, devises, stocks, bonds, buildings, museums, lands, apparatus, etc., under the conditions attaching thereto. Said trustees shall have power to determine, from time to time, the number of departments of study or investigation which the college shall comprise within the scope of the organic act of Congress, or acts supplementary thereto, donating land scrip for the endowment of agricultural and mechanical colleges; the relation which each department or group of departments shall sustain to each other and to the whole; to

devise, allot, and arrange the distributions of departments or groups of departments, with the designation appropriate to each; and to devise the means required for their effective instruction, administration, and government. They shall have also power to appoint presidents, professors, assistants, tutors, and other officers, and to determine the salaries, duties, and official relations of each; and shall provide for a definite salary in money attached to all positions created and filled by the board of trustees; and there shall be no additions thereto in the form of fees, perquisites, or emoluments of any kind whatever. They shall have full power to suspend or remove at will any of the officers, teachers, professors, or agents whom they are authorized by law to appoint, and to do all other acts which may be needful for the welfare of the institution.

SEC. 17. Said board of trustees shall have power to grant degrees to the alumni of the institution, to prescribe conditions upon which post-graduate honors shall be obtained by its alumni and others, and to confer such honorary degrees upon the recommendation of the faculty of the institution as they may think proper.

SEC. 18. A majority of the whole board shall constitute a quorum for the transaction of business.

SEC. 19. In the appointment of presidents, professors, or instructors no preference shall be shown to any religious denomination.

SEC. 20. The board of trustees shall meet in Lexington twice each year in the president's room in the college, namely, upon the Tuesday preceding the annual commencement and upon the second Tuesday in December. In the absence of the governor the board shall have the power to appoint a chairman pro tempore. They shall elect annually a secretary, who shall keep a record of their proceedings, and a treasurer, who shall receive and disburse the funds, and a business agent, who shall make all purchases for all departments of the college and attend to all the business under the direction of the board. Said secretary and treasurer and business agent shall receive for their services a fair compensation, but the treasurer elected under the provisions of this act shall not be a member of the board of trustees or of the faculty of the college, or otherwise an employee of the college or of any of the departments thereof. They shall at each regular meeting appoint an executive committee, consisting of five of their number residing in or near Lexington, including a chairman thereof, three of whom shall constitute a quorum, and said committee shall choose from their number a chairman pro tempore, to act in the absence of the permanent chairman. The executive committee shall be charged with the general administration of the affairs of the college, under such by-laws and regulations as shall be prescribed by the board of trustees, and with the execution of measures specially authorized by the board. It shall, at each regular meeting of the trustees, and at each called meeting, if required, submit to the board a complete record of its proceedings for the consideration and approval of the board of trustees: *Provided*, That the authority of the board of trustees to revise the acts of the executive committee shall not extend to the general or specific authority granted by the board of trustees, and within the sums appropriated by the board for the specific or contingent objects at regular or called meetings. The secretary of the board of trustees shall also be secretary of the executive committee and the custodian of the records, and so forth, of the board and said committee.

SEC. 21. The treasurer of said college shall enter into covenant with the Commonwealth of Kentucky, with one or more good sureties bound therein, to be approved by the board of trustees, conditioned for the faithful performance of his duties and the payment of all moneys that shall come to his hands to his successors in office or to such person or persons as may be lawfully entitled to receive the same. Any person or persons, including the board of trustees, injured by any breach of this bond may maintain in the Fayette circuit court appropriate action thereon. The said treasurer shall keep an itemized account of receipts and expenditures and shall pay out no money except on authorization of the board of trustees, given directly or through its executive committee. He shall render to the executive committee monthly statements of receipts and expenditures and amount on hand, and a full detailed statement, with vouchers, for the information and action of the board of trustees at its regular annual meeting and at other periods when required.

SEC. 22. In the case of the death, resignation, or refusal to serve of any of the trustees appointed as members of the board on behalf of the State the remaining trustees shall, at their first meeting thereafter, have power to fill all vacancies occasioned by such death, resignation, or refusal to serve, and the person or persons so appointed shall hold their office as trustees during the natural or unexpired terms of the person or persons for whom they are substituted and appointed.

Any trustee who shall fail to attend two consecutive meetings, without proper notification to the secretary of the reason therefor, shall thereby vacate his office of trustee, and the board shall fill the vacancy as hereinbefore provided for.

SEC. 23. All necessary expenses incurred by the trustees in going to, returning from, or while attending the meetings of the board shall be met and discharged out of the funds of the institution.

SEC. 24. That in addition to the regular meetings, called meetings of the board of trustees may also be held. The call for such meeting must be in writing, signed by three or more trustees. The call must also be formally communicated by the secretary to each trustee by mail, at his post-office address, at least fifteen days before the day fixed for the meeting, and must state definitely the object of the meeting; and no business not thus explicitly announced shall be acted on at the called meeting.

SEC. 25. That the regular collegiate period of the agricultural and mechanical college shall be four years, and only those students who pass through that period and attain the prescribed standard of proficiency in the regular course of studies, or those who have qualified themselves elsewhere, shall be found, after at least one year's attendance in the college, to have attained the prescribed standard of proficiency in the regular course of studies shall receive a diploma from the college. But a normal department or course of instruction for irregular periods, designed more particularly, but not exclusively, to qualify teachers for common or other schools, and an academy or preparatory department to prepare students for the regular courses of study in the college shall be established and maintained in connection with the college, each under a competent principal and assistants, and under the general supervision and control of the faculty thereof.

SEC. 26. The board of trustees are hereby empowered to establish proper regulations for the government of the college and the physical training, military or otherwise, of the students, and to authorize the suspension and dismissal of students for neglect or violation of the regulations, or for other conduct prejudicial to the character and welfare of the institution.

SEC. 27. The board of trustees shall make to the general assembly, within the first month of each regular session, a full report of the condition and operation of the college since the date of the preceding report, with such recommendations concerning the college as may be deemed necessary.

SEC. 28. Each legislative district in the State shall, in consideration of the incomes accruing to the college under "An act for the benefit of the Agricultural and Mechanical College of Kentucky," approved April 29, 1880, be entitled to select and to send to said college each year one properly prepared student, free from all charges for tuition, matriculation fees, room rent, fuel and lights, and to have all the advantages and privileges of the college and dormitories free, except board. Students shall be entitled, free of any cost whatever, to the benefits enumerated above for the term of years necessary to complete the course of study in which he or she matriculates for graduation, or during good behavior. All beneficiaries of the State who continue students for one consecutive collegiate year, or ten months, unless unavoidably prevented, shall also be entitled to their necessary traveling expenses in going to and returning from said college. The selection of the beneficiaries shall be made by the superintendents of common schools in their respective counties, upon competitive examination on subjects prepared by the faculty of the college and transmitted to said superintendents before the 1st day of June of each year: *Provided*, That no standard of admission adopted by the college for admission into the academy shall exclude from the benefits of this act county appointees who have completed the course of study prescribed by law for the common schools of the Commonwealth. Said competitive examination shall be open to all persons between the ages of 14 and 21 years. Preference shall be given, other things being equal, to those who have passed with credit through the public school, persons of energy and industry whose means are small, to aid whom in obtaining a good education this provision is intended. If any representative district contains more than one county, each county so included shall be entitled to select one beneficiary as aforesaid. Said competitive examination shall be held and the successful competitor appointed between the 1st day of June and the 1st day of August of each year. It shall be the duty of the county superintendent to make known the benefits of this provision to each common school district under his superintendency, with the time and place, when and where such competitive examination shall be held. He shall for this purpose appoint a board of examiners whose duty it shall be to conduct the examination.

SEC. 29. In addition to the foregoing, teachers, or persons preparing to teach, may be admitted at the rate of not more than four from each county, upon the same conditions, receive the same benefits, and have the same privileges in said

college as prescribed in the preceding section. The appointments shall be vested in the county superintendents. Said appointments may be made and certified to the president of the college at any time between the 1st day of July and the 31st day of December of each year.

SEC. 30. The president shall, on or before the 1st day of July of each year, have printed and mailed to each county superintendent of common schools of this State at least as many circulars of information relative to said college as there are common school districts in said respective counties. Said circulars shall set forth in full the benefits of, methods of admission into, and the probable cost to beneficiaries of said college. The county superintendents of common schools shall have at least one of said circulars posted in the schoolhouse of each common school district in their respective counties during the term of the free school thereof.

SEC. 2735. (1) The geological collection, including maps, charts, apparatus, and all the accumulated material of the geological survey, is hereby directed to be removed to the building of the State college, to be placed in rooms suitable for that purpose, there to remain, subject, however, to be recalled at any time that may seem proper by the general assembly.

(2) The present inspector of mines shall keep an office at the State college, and the salary of himself and each assistant, including his salary as curator of the geological survey, as provided by law, shall continue during the term of service for which he and they were appointed.

(3) The board of trustees of the State college are hereby authorized to establish a course of study in said college to be known and designated as the "course of mining engineering," in which shall be taught all the branches of science relating thereto, and said board of trustees shall, after the expiration of the terms of service of the present inspector and assistants, respectively, select, as other professors are selected, a suitable and competent person for dean of the same, with the necessary staff of assistants, and said dean shall, by reason of said selection, be the inspector of mines, with all the powers and privileges now conferred upon the said inspector by law. It shall also be his duty to determine, by chemical analysis or otherwise, the kind and quantity of the mineral products of the State of Kentucky as may be sent to him for inspection or analysis, and give written opinions thereon; but these latter duties shall not be allowed to interfere with his duties as inspector, relative to the safe condition of the coal mines of the State. He shall take the required oath and give the same bond as now required by same officer. He and his assistants shall hold office on identically the same conditions with other professors in said college, and shall be subject to removal as they are. Said dean and his assistants, however, inasmuch as their duties consist primarily and principally of work peculiarly public and practical in relation to the mines and mineral products of the Commonwealth, shall be regarded as public servants in a sense in which the ordinary professors of the college can not be regarded, and shall therefore receive compensation directly from the State and not from the funds of the college, and their compensation as now fixed by law shall be certified to the auditor as heretofore and paid out of the treasury as now paid.

(4) The inspector of mines is hereby directed to remove within a reasonable time the geological collection of this State, including maps, apparatus, etc., to the State college at Lexington.

SEC. 1822. In each year, before any person or company shall sell, offer, or expose for sale in this State any commercial fertilizer, said person or company shall furnish to the director of the agricultural experiment station of the Agricultural and Mechanical College of Kentucky, which station is hereby recognized as the "Kentucky Agricultural Experiment Station," a sealed quantity of such commercial fertilizer, not less than 1 pound, sufficient for analysis, accompanied by an affidavit that the sample so furnished is a fair and true sample of a commercial fertilizer which the said person or company desires to sell in this State, and said affidavit shall also state the name and address of the manufacturers, the name of the fertilizer, the number of net pounds in each package, and the minimum percentages of the essential ingredients guaranteed in each fertilizer, in such form and manner as may be prescribed by said director.

(2) The director of said experiment station, upon receipt of affidavit and sample, as provided for in section 1, and upon receipt of the fees hereinafter provided, shall issue to said person or company a sufficient number of labels to tag not less than 20 tons of said fertilizer, on which label shall be printed the name and address of the manufacturer, the name of the fertilizer, the number of net pounds in each package, and the minimum percentage composition in terms approved by the said director, as certified to in affidavit furnished by said person or company, together with a certificate from the director over his facsimile signature, authorizing the sale of such packages, according to the provisions of this act.

(3) Every bag or other package or quantity of any commercial fertilizer, in any shape or form whatever, sold or offered for sale in this State, shall have attached to it in a conspicuous place a label as provided in section 2.

(4) Any manufacturer or vender of any commercial fertilizer, or any person or company who shall sell, offer, or expose for sale any fertilizer, without having previously complied with the provisions of this act, shall be fined not less than $100 nor more than $500 for each violation or evasion of this act.

(5) The director shall receive for the labels described in section 2 of this act 50 cents for such number as may be required for 1 ton of fertilizer: *Provided*, That he may not furnish at any one time a less quantity than is sufficient for 10 tons of fertilizer.

(6) The director of said Kentucky Agricultural Experiment Station shall pay all such fees received by him into the treasury of the Kentucky Agricultural Experiment Station, the authorities of which shall expend the same in meeting the legitimate expenses of the station, and for inspecting and making analyses of fertilizers, in experimental tests of same, and in other experimental work and purchases as shall inure to the benefit of the farmers of this Commonwealth. The director shall, within two months of the biennial meeting of the general assembly, present to the commissioner of agriculture a report of the work done by him, together with an itemized statement of receipts and expenditures for the two years preceding under the operations of this act.

(7) The director of said experiment station is hereby authorized, in person or by deputy, to take samples for analysis from any bag or other package or quantity of any commercial fertilizer in the possession of any dealer or transportation company in this State; to enforce the provisions of this act, and to make and enforce such rules and regulations as he may deem necessary to carry fully into effect the true intent and meaning of this act.

(10) The director of said experimental station shall annually analyze or cause to be analyzed at least one sample of every fertilizer sold or offered for sale under the provisions of this act; and he shall publish in one or more bulletins the analyses made during the year, together with the relative commercial value of each fertilizer computed from its anlaysis as he may determine, and the analysis guaranteed by the manufacturer.

(11) To facilitate the inspection of fertilizers, the director is authorized to require all manufacturers making shipments into or within this State to notify him of the kinds, amounts, dates, destinations, and the consignee of all such shipments.

SEC. 1905a. (4) The experiment station of the Agricultural and Mechanical College, hereby designated as the Kentucky Agricultural Experiment Station, shall make analysis of food products on sale in Kentucky suspected of being adulterated at such times and places and to such extent as the director thereof may determine. And the director of the said Kentucky Agricultural Experiment Station may appoint such agent or agents as he deems necessary, who shall have free access at all reasonable hours, for the purpose of examining into any place wherein it is suspected any article of food adulterated with any deleterious or foreign ingredient or ingredients exists, and such agent or agents, upon tendering the market price of said article, may take from any person, firm, or corporation samples of any article suspected of being adulterated as aforesaid, and said station may adopt or fix standards of purity, quality, or strength when such standards are not specified or fixed by statute.

(5) Whenever said station shall find by its analysis that adulterated food products have been on sale in the State it shall forthwith transmit the facts so found to a grand juror or prosecuting attorney of the district in which said adulterated food product was found.

(6) Said station shall make an annual report to the governor upon adulterated food products, in addition to the report required by law, which shall not exceed 150 pages, and said report may be included in the report which said station is already authorized by law to make, and such annual reports shall be submitted to the general assembly at its regular session.

(8) The said Kentucky Agricultural Experiment Station shall receive for taking samples within the provisions of this act, and for analysis of the same, only actual traveling expenses and $5 for each sample taken and analyzed, to be paid by the Commonwealth of Kentucky upon warrant of auditor as other claims, but recovered of the owner of such article of food if declared upon inspection to be found adulterated or misbranded within the meaning of this act. The expenses of above inspections shall in no year exceed $2,500.

(9) All fines recovered under this act shall be kept as a separate fund to pay necessary expenses in maintaining same.

SEC. 1925a. All nurseries in Kentucky where trees, vines, plants, or other nursery stock are grown and offered for sale shall be inspected by the entomologist and botanist of the State Agricultural Station once each year at such time as he may elect, and he shall notify, in writing, the owners of such nurseries, the commissioner of agriculture and statistics, the director of the State Agricultural Experiment Station, and the president of the State Horticultural Society of the presence of any San Jose scale or other destructively injurious insects or fungi on the trees, vines, plants, or other stock of such nurseries, and shall also notify, in writing, the owner of any affected stock that he is required, on or before a certain day, to take such measures for the destruction of such insect or fungus enemies of nursery stock as have been shown to be effectual for this purpose. Said entomologist and botanist shall, for the purpose of this act, be, and he is hereby, declared to be the State entomologist, and shall serve without pay other than that he may receive as an officer of the State Agricultural Experiment Station, but his expenses shall be paid as hereinafter provided.

(7) The sum of $500 annually, or so much thereof as may be necessary, is hereby appropriated for the purpose of paying the expenses of the State entomologist in the performance of his duties under the provisions of this act, and the auditor of public accounts is hereby directed to honor requisitions made by said State entomologist for expenses incurred in the performance of his duties.

Acts of the general assembly, 1900, chapter 24. SECTION 1. The sum of $60,000, or as much as may be necessary therefor, is hereby appropriated for the purchase of ground and the erection thereon of a suitable building as a dormitory for young women students of the Agricultural and Mechanical College of Kentucky, and the equipment and furnishing thereof, which dormitory shall be capable of lodging and boarding comfortably 125 persons; also for the purpose of erecting and equipping a suitable building for military instruction, physical culture, and rooms for Young Men's Christian Association; also for the erection and equipment of a suitable building for the use of the normal department and for the use of the academy; also for the erection and equipment of a dormitory for young men students of said college; also for the purpose of erecting and furnishing an annex for the use of the engineering departments of said college.

SEC. 4. The board of trustees shall appoint three prudent, discreet, intelligent women, members in good standing of one of the religious organizations recognized by the laws of the United States, who shall constitute a board of supervision or control to manage and superintend, under the direction of the board of trustees, the dormitory for young women. The term of service shall be for six years; but the first appointments shall be, one for two years, one for four years, and one for six years, respectively, and thereafter, upon the expiration of their terms of service, one shall be appointed at the close of each biennial period to fill the vacancy: *Provided, however*, That the board of trustees shall have power at any time to remove any member of the board of control for reasons which they may deem sufficient and to fill the unexpired term by an ad interim appointment. Said board of supervision shall meet at convenient intervals for the transaction of business. They shall keep a record of their proceedings and submit the same to the board of trustees at their regular meetings. Their receipts and expenditures shall be embodied in semiannual reports to the board. They shall, when the dormitory is ready for the reception of students, submit to the board of trustees for their approval, or to the executive committee, if the board of trustees be not in session, a body of regulations in relation to their administration of the business of the dormitory and in relation to the conduct and discipline of its occupants. The members of the board of supervision or control shall receive no salary; but the necessary expenses incurred in the discharge of their duties shall be paid out of the funds set apart for the administration of the woman's dormitory. * * *

SEC. 7. The duties of the board of supervision or control shall be concerned exclusively with the management of the woman's dormitory and shall in no wise relate to the college privileges, duties, and relations of the young women, nor to the requirements of the faculty regarding their work or the discipline and control of the faculty over them as students.

SEC. 8. The president of the college shall, as the representative of the board of trustees, have the same general authority in regard to the woman's dormitory which he is expected and required to exercise over the interests all and singular of the college, and any occupant of said dormitory who may feel aggrieved by the act of the board of control or the subordinate appointees shall have the privilege of appeal to the president of the college, whose decision shall be final until the next meeting of the executive committee.

SEC. 9. Women students attending said college as beneficiaries and appointees of counties or legislative districts shall have preference for accommodations in said woman's dormitory, and if the accommodations of said dormitory are not sufficient for all such appointees, then the proper authorities of said college shall decide, in some way fair and equitable, who shall be entitled to said accommodations, all counties being given equal representation as nearly as possible. If any rooms in said dormitory remain after all such appointees are accommodated, other female students may be allowed the use thereof, each county being given equal representation as nearly as possible. All rooms shall be assigned by lot three days after the session opens. Like rules and preferences shall be observed in regard to dormitory accommodations provided for men students at said college. All rooms shall be assigned by lot three days after the session opens.

SEC. 4527. The State normal school for colored persons, established by an act of the general assembly May 18, 1886, shall hereafter (i. e., after May 22, 1893) be under the control and supervision of a board of trustees, composed of the superintendent of public instruction, who shall be ex officio chairman of the board, and three intelligent and discreet persons, residents of Franklin County, to be appointed by the governor, subject to the approval of the senate, who are hereby constituted a body corporate, with power to sue, etc., and to hold in trust all funds and property now owned by said school or which may hereafter be provided for it, and shall be known and designated as "The board of trustees of the Kentucky State Normal School for Colored Persons."

SEC. 4528. There shall be maintained in said institution a department for the education of colored students in agriculture and the mechanic arts, and for said purpose said board shall be entitled to receive an equitable division of the moneys arising from the sale of public lands and appropriated to the State of Kentucky by an act of Congress approved August 30, 1890.

SEC. 4534. The sum of $3,000 shall be annually appropriated out of the State treasury to pay the teachers and defray other necessary expenses in the maintenance of said normal school, which amount, together with the sum received under the provisions of said act of Congress, shall be set apart and be known and held as the colored normal school fund. This fund shall be paid out of the State treasury only on the warrant of the auditor, drawn on the order of the board.

LOUISIANA.

Constitution (1898): ART. 255. The Louisiana State University and Agricultural and Mechanical College, founded upon the land grants of the United States to endow a seminary of learning and a college for the benefit of agriculture and the mechanic arts, now established and located in the city of Baton Rouge, is hereby recognized, and all revenues derived and to be derived from the seminary fund, the agricultural and mechanical college fund, and other funds or lands donated or to be donated by the United States to the State of Louisiana for the use of a seminary of learning or of a college for the benefit of agriculture and the mechanic arts shall be appropriated exclusively to the maintenance and support of said Louisiana State University and Agricultural and Mechanical College, and the general assembly shall make such additional appropriations as may be necessary for its maintenance, support, and improvement, and for the establishment, in connection with said institution, of such additional scientific or literary departments as the public necessities and the well-being of the people of Louisiana may require: *Provided*, That the appropriation shall not exceed $15,000 per annum for its maintenance and support.

ART. 258. The debt due by the State to the seminary fund is hereby declared to be $136,000, being the proceeds of the sales of lands heretofore granted by the United States to this State for the use of a seminary of learning, and said amount shall be kept to the credit of said fund on the books of the auditor and treasurer of the State as a perpetual loan, and the State shall pay an annual interest of 4 per cent on said amount.

ART. 259. The debt due by the State to the agricultural and mechanical college fund is hereby declared to be the sum of $182,313.03, being the proceeds of the sale of lands and land scrip heretofore granted by the United States to this State for the use of a college for the benefit of agriculture and mechanic arts, and said amount shall be kept to the credit of said fund on the books of the auditor and treasurer of the State as a perpetual loan, and the State shall pay an annual interest of 5 per cent on said amount.

ART. 260. The interest due on the free-school fund, the seminary fund, and the agricultural and mechanical college fund shall be paid out of any tax that may be levied and collected for the payment of the interest on the State debt.

ART. 307. The board of agriculture and immigration shall consist of one member from each Congressional district * * * [and] the governor of the State, the commissioner of agriculture and immigration, the president of the State University and Agricultural and Mechanical College, the vice-president of the board of supervisors of the State University and Agricultural and Mechanical College, and the director of the State experimental stations shall be ex officio members of this board. The members of said board shall serve without compensation, except actual expenses incurred in attending the meetings.

[The following matter is taken from the Revised Laws of Louisiana, Compiled and Annotated by Solomon Wolff, of the New Orleans Bar. New Orleans, 1897.]

SEC. 593. An act of Congress of the United States, approved July 2, 1862, and the grant of land and land scrip thereby made, is hereby accepted on the part of the State of Louisiana.

SEC. 594. The said grant of land and land scrip is hereby accepted for the purposes and upon the conditions in said act of Congress specified, and the assent of the State of Louisiana to the several conditions and provisions in said act contained is hereby signified and expressed.

SEC. 595. The governor of the State, together with the chief justice of the supreme court and a commissioner to be duly appointed by them, are hereby appointed commissioners to receive from the Secretary of the Interior, or other officer of the United States, the land scrip to which the State of Louisiana is or may be entitled under the act of Congress aforesaid, and to sell and dispose of the same, and upon said sale being made by said commissioners, they are authorized to appoint one person to assign said land scrip in accordance with the rules of the Department of the Interior.

[The following matter is not incorporated as an integral part of the Revised Statutes proper, but as Acts of the Legislature.]

Act 145, 1876, page 18, of Acts of 1878: SECTION 1. The Louisiana State University, as now established and located at Alexandria, in the parish of Rapides, and the Louisiana State Agricultural and Mechanical College, as now established and located in the parish of St. Bernard, are hereby united and constituted into one and the same institution of learning, which shall hereafter be known and designated under the name and title of the Louisiana State University and Agricultural and Mechanical College, and that said institution of learning, the Louisiana State University and Agricultural and Mechanical College, as hereby created, shall be established temporarily at Baton Rouge, in the parish of East Baton Rouge.

SEC. 2. All legal rights and privileges as granted by the Congress of the United States and the legislature of Louisiana, and all the legal obligations and requirements as imposed by Congressional and legislative enactments, and binding upon the two institutions of learning, respectively, which have been, in the preceding section of this act, united and constituted into one and the same institution of learning, shall be of full force and effect with and upon the Louisiana State University and Agricultural and Mechanical College, as hereinbefore constituted and established, excepting such legal rights, privileges, obligations, and requirements as may be specifically repealed by the provisions of this act.

SEC. 3. The Louisiana State University and Agricultural and Mechanical College, as hereinbefore created, shall have for its object to become an institution of learning, in the broadest and highest sense, where literature, science, and all the arts may be taught; where the principles of truth and honor may be established, and a noble sense of personal and patriotic and religious duty inculcated; in fine, to fit the citizens to perform justly, skillfully, and magnanimously all the offices, both private and public, of peace and war.

SEC. 4. The Louisiana State University and Agricultural and Mechanical College, as hereinbefore created, shall provide general instruction and education in all the departments of literature, science, and art, and industrial and professional pursuits; and it shall provide special instruction for the purpose of agriculture, the mechanic arts, mining, military science and art, civil engineering, law, medicine, commerce, and navigation.

SEC. 5. The Louisiana State University and Agricultural and Mechanical College as hereinbefore created, constituted, and established shall be under the direction and control of fifteen supervisors, who shall be a body corporate, under the style and title of the board of supervisors of the Louisiana State University and Agricultural and Mechanical College, with the right as such to use a common seal, and who shall be capable in law to receive all donations, subscriptions, and bequests in trust for said university and agricultural and mechanical college and to recover all debts which may become the property of said university and agricultural and mechanical college, and to sue and be sued in courts of justice, and in general to

do all acts for the benefit of the Louisiana State University and Agricultural and Mechanical College which are incident to bodies corporate.

SEC. 6. The governor of the State shall be a member and ex officio president of the board of supervisors, and the State superintendent of public education and the president of the faculty of the university shall also be members ex officio of said board, and the twelve remaining members shall be appointed by the governor, by and with the advice and consent of the senate: *Provided*, That at least six of the fifteen supervisors of the university shall have been students of the Louisiana State University or of the Louisiana State University and Agricultural and Mechanical College, and shall have taken degrees and be titled graduates of one of said institutions. At least one member of said board of supervisors shall be appointed from the parish of East Baton Rouge. Whenever a vacancy occurs in said board for any cause the same shall be filled for the unexpired term. The terms of office of the present members of the board of supervisors as now constituted under appointments heretofore made shall in no manner be abridged, terminated, or affected by the provisions of this act, but whenever a vacancy shall hereafter occur for any cause in the board of supervisors, the same shall be filled by the appointment of a titled graduate of one of said institutions until at least six titled graduates aforesaid shall be members of said board of supervisors, and said board shall be thereafter so constituted and maintained (as amended by act 75, 1896, p. 107).

SEC. 7. Three of the twelve members of the board of supervisors to be appointed by the governor in accordance with the provisions of the foregoing section of this act shall be commissioned and hold their offices for one year, three for two years, three for three years, and three for four years. Their successors shall be appointed in like manner, and shall hold their offices for the full term of four years from the 1st day of January next succeeding their appointment, and until their successors are appointed and qualified.

SEC. 8. The member of the board of supervisors appointed for the parish of East Baton Rouge, in which, as hereinbefore provided, the Louisiana State University and Agricultural and Mechanical College has been temporarily established and located, shall be ex officio the vice-president of the board, to preside over the meetings of the board in the absence of the governor. Five members of the board of supervisors, including the president or vice-president, shall constitute a quorum for the transaction of business: *Provided*, That all the acts of said five members, at said such meeting, shall be submitted for ratification or rejection at the next meeting of the board of supervisors, when a majority of all the fourteen members of the board may be present.

SEC. 9. There shall be four regular stated meetings of the board of supervisors at the university in each and every year—one on the first Monday in April, another on the Monday before the close of the annual session of the university, which shall be July 4; another on Monday before the opening of the annual session of the university, which shall be October 5, and another on the first Monday in December. Special meetings of the board of supervisors shall be called in such manner and held at such other times and places as the governor of the State or the board of supervisors may determine.

SEC. 10. The board of supervisors shall, at their first meeting, elect a secretary, who shall record, attest, and preserve their proceedings, and a treasurer, who shall give bond for the faithful performance of his duties, and in such sum as shall be determined by the board: *Provided*, That the treasurer shall not be a member of the board of supervisors, nor a professor or other officer or other employee of the university: *And provided further*, That the treasurer shall never be interested, directly or indirectly, in any contract for furnishing supplies or articles of any kind to the university, or have any business transactions with or on account of the university that tend directly or indirectly to his own personal profits; nor shall any money ever be paid to the treasurer in his personal capacity, or on account of the university, except what may be his salary or compensation as treasurer.

SEC. 11. The board of supervisors shall have power to engage a president and other professors and all other officers necessary for conducting the literary, scientific, military, and technical departments, and all the financial and civil concerns and interests of the university, and to remove and displace the same at pleasure; to fix and regulate the salaries of the professors and all other officers, and to determine all other changes, excepting that there shall be no fee for tuition or for the use of the library, apparatus, laboratory, cabinets, museum, workshop, experimental farm, or other educational appliances charged to any student or cadet; to establish rules for the good government and discipline of the students or cadets; to prescribe the duties of all officers, employees, servants, and others; to confer

diplomas, upon the recommendation of the president and faculty, on students for proficiency in any branch of literature or science or department of learning, and in general to make all rules and regulations which may be deemed necessary for the proper government of the university, and for promoting the objects for which it has been founded. But nothing in this act shall be construed as obligating the State to pay any debt contracted by the board of supervisors in case it should at any time exceed the appropriation made for the institution, nor shall any of the property of the university ever be seized and sold to pay any debt of the institution by virtue of any decree of court. The title to all property owned and held by the Louisiana State University and Agricultural and Mechanical College is hereby declared to vest in the State of Louisiana.

SEC. 12. There shall be maintained in the Louisiana State University and Agricultural and Mechanical College, as hereinbefore constituted and established: (1) Schools of literature, including the languages of the principal nations of ancient and modern times, philosophy, logic, rhetoric, and elocution, history, ethics, metaphysics, and such other and special branches of learning as the board of supervisors may determine; (2) schools of science, including mathematics, astronomy, engineering, architecture, drawing, physics, chemistry, botany, zoology, agriculture, mechanics, mining, navigation, and commerce, and such other special branches of learning as the board of supervisors may determine; (3) schools of the useful and fine arts and of military science and art; (4) schools of medicine and law; (5) such other schools as the board of supervisors may establish.

SEC. 13. The board of supervisors may affiliate with the Louisiana State University and Agricultural and Mechanical College any incorporated university or college or school of medicine, law, or other special course of instruction, upon such terms as may be deemed expedient; and such university, college, or school may retain the control of its own property, have its own board of trustees, faculties, and president, respectively; and the students of such universities, colleges, or schools recommended by the respective faculties thereof may receive from the Louisiana State University and Agricultural and Mechanical College the degrees of those universities, colleges, or schools, and the said students of said institutions of learning or special schools thus graduated shall rank as graduates of the Louisiana State University and Agricultural and Mechanical College.

SEC. 14. It shall be the duty of the board of supervisors immediately after its organization to prescribe, in detail, the course of studies, both theoretical and practical, to be pursued at the university and agricultural and mechanical college, and to draw up a project of the system of instruction so adopted.

SEC. 15. The board of supervisors shall be charged with the purchase of all the necessary grounds and land for the purpose of the university and agricultural and mechanical college, and with the purchase or erection, or both, as may be necessary, of all requisite buildings, workshops, laboratories, and other fixtures and contrivances needed for the academic, military, industrial, or other departments of the university and agricultural and mechanical college, and with the purchase of all necessary supplies or articles for the use of the university and agricultural and mechanical college: *Provided*, That no member of the board of supervisors shall have any personal interest in any contract or purchase or sales or in any business transaction of any kind whatever for or on account of said university and agricultural and mechanical college; and said board of supervisors shall be charged with the care and preservation of all the buildings, grounds, and appurtenances of the university after they shall have been provided.

SEC. 16. The board of supervisors are hereby empowered to lease as early as may be practicable and invest the proceeds thereof in the stocks of the State of Louisiana, or in the stocks of the United States, all the buildings and grounds and lands belonging to and held by the Louisiana State University, as it was established and located in the parish of Rapides prior to the passage of this act, and to sell or lease all the buildings and grounds and land belonging to and held by the Louisiana Agricultural and Mechanical College, as it was established and located in the parish of St. Bernard prior to the passage of this act; and said stocks or bonds shall be deposited for safe-keeping with the treasurer of the State.

SEC. 17. For the endowment, support, and maintenance of the Louisiana State University, as heretofore created, constituted, and established, there shall be and is hereby inviolably appropriated and placed at the disposal of the board of supervisors thereof, to be drawn from the State treasurer, upon the order of the president of the board, made upon the auditor of the State, countersigned by the secretary of the board, and payable to the order of the treasurer of the board of supervisors, all the interest and income derived and to be derived from the sales of all lands granted or that may hereafter be granted to the State of Louisiana by the United States for the use of a seminary of learning, and all the interest and

income of the fund derived or to be derived from the sales of all land and land scrip granted, or that may hereafter be granted to the State of Louisiana by virtue of an act of Congress approved July 2, 1862;[a] and all the interest and income of the funds to be derived from the lease of the buildings, grounds, and lands in the parish of Rapides and owned by or held for the use of the Louisiana State University, as it existed prior to the passage of this act; and from the sale or lease of the buildings, grounds, and lands in the parish of St. Bernard owned by or held for the use of the Louisiana Agricultural and Mechanical College, as it existed prior to the passage of this act; and all such gifts, grants, contributions, and other donations to the endowment thereof as may be derived from any and all sources.

SEC. 18. It is particularly enjoined upon the board of supervisors of this university and agricultural and mechanical college to make the training in those branches of study relating to agriculture and the mechanic arts as practical as possible, and to that end to provide the necessary workshops and laboratories, and to secure suitable land in the vicinity of the university and agricultural and mechanical college for an experimental farm. For the purchase of an experimental farm the board of supervisors is hereby authorized to expend a sum not exceeding the amount specified in the act of Congress hereinbefore mentioned, viz, 10 per cent upon the amount received by the State as the proceeds of the sale of the lands and the land scrip donated by the General Government of the United States.

SEC. 19. Immediately after the passage of this act it shall be the duty of the governor of the State to appoint the members of the board of supervisors, who shall convene within ten days after the passage of this act at Baton Rouge, in the parish of East Baton Rouge, for the purpose of electing the officers of the board and of organizing the university and agricultural and mechanical college, to the end that it may be in full and successful operation as early as possible.

SEC. 20. At the regular stated meeting in December of each and every year the board of supervisors shall, through the governor of the State, make a report in detail to the legislature, showing the true condition and wants of the university and agricultural and mechanical college, and recording any improvement and experiments made in agriculture and the mechanic arts, with their costs and results; the names of the professors and students; the amount of receipts and disbursements, together with the nature, costs, and results of all important scientific investigations and experiments in the useful arts, and such other matters, including State, industrial, and commercial statistics, and literary, historical, philological, philosophical discussions or essays as may be deemed important or useful, one copy of which shall be transmitted to all the other colleges which shall be endowed under the provisions of an act of Congress of July 2, 1862, as hereinbefore mentioned.

SEC. 21. The president of the Louisiana State University and Agricultural and Mechanical College shall be the president of the faculty of professors thereof and executive head of the institution in all its departments. As such officer he shall have authority, subject to the board of supervisors, to give general direction to the practical affairs and scientific investigations of the university and agricultural and mechanical college, and in the recess of the board of supervisors to remove any employee or subordinate officer not a member of the faculty, and supply for the time any vacancies thus created; and so long as the interests of the institution require it he shall be charged with the duties of one of the professorships; and it shall be the duty of the president of the university and agricultural and mechanical college to make to the State superintendent of public instruction, on or before the first Monday in December in each year, and every year, a report in detail showing the progress and condition of the university, the names of the professors and students, the nature, costs, and results of all important investigations and experiments, and such other matters, including industrial, economical, philosophical, and educational statistics as he shall deem useful.

SEC. 22. The president of the university and agricultural and mechanical college shall be specially charged with the discipline of the university and agricultural and mechanical college, and be held responsible for the good order of the establishment, and especially for the conduct and behavior of the students or cadets. And it is hereby declared not to be the intent of this act to devolve in

[a] The funds granted to the State of Louisiana by an act of Congress approved August 30, 1890, are divided between the Louisiana State University and Agricultural and Mechanical College and the Southern University (for colored students) on the basis of the school population of the two races.

any way upon the professor, as such, or upon the faculty of professors, the maintenance of good order and discipline among the students or cadets, or to hold them responsible for the conduct or behavior of the cadets or students outside of their class or lecture rooms and during the time of recitation, or study, or lecture; and it is particularly enjoined upon the board of supervisors to delegate to the president of the university and agricultural and mechanical college, and through him to such assistant disciplinarians as may be assigned him from among the professors and assistant professors, sufficient authority to enable him to maintain proper discipline and good order, and to meet promptly and efficiently the great responsibility hereby imposed on him. No student or cadet shall ever be tried by the faculty or professors or by any committee of professors for any breach of discipline or other misconduct. But no provision of this section or this act shall be construed as militating against a proper subordination of professors or other officers to the president of the university and agricultural and mechanical college, and the necessity of obeying all the rules and orders which he may impose on them in virtue of the provisions of this act, and of the rightful authority delegated to him by the board of supervisors, as hereby enjoined upon the board; and the president of the university and agricultural and mechanical college shall have the power to assemble the faculty or any committee or number of the professors at any time he may see fit for consultation or advice or other action, on any subject-matter he may choose to lay before them, provided only, that in all matters of discipline and relating to the conduct and behavior of students and cadets the president alone, and not the faculty or any professor, shall decide and act.

SEC. 23. The State of Louisiana in its corporate capacity may take by grant, gift, devise, or bequest any property for the use of the Louisiana State University and Agricultural and Mechanical College, or any school thereof, or of any professorship, chair, or scholarship therein, or for the library, museum, observatory, workshops, experimental farm, apparatus, cabinet, or for any purpose appropriate to the university and agricultural and mechanical college; and such property shall be taken, received, held, managed, and invested, and the proceeds thereof used, bestowed, and applied by the said board of supervisors for the purposes, provisions, and conditions prescribed by the respective grant, gift, devise, or bequest, and in accordance with the provisions of sections 5, 11, and 17 of this act.

SEC. 25. The board of supervisors may invest any of the permanent funds of the Louisiana State University and Agricultural and Mechanical College which are now, or may hereafter be, in its custody, in productive, unincumbered real estate in this State, subject to the power of the legislature; to control or change such investments, excepting such as by the provisions of previous sections of this act, or by the terms of their acquisition must be otherwise invested.

SEC. 26. If, by the terms of any grant, gift, devise, or bequest, such as are hereinbefore described in sections 23 and 24 of this act, conditions are imposed which are impracticable under the provisions of the revised statutes of this State, such grants, gifts, devise, or bequest shall not thereby fail, but such conditions shall be rejected and the intent of the donor carried out as near as may be.

Acts 1886, No. 100: SECTION 1. Each parish as now created or that may hereafter be created in the State shall have the right to delegate to the Louisiana State University and Agricultural and Mechanical College one beneficiary cadet, and the city of New Orleans shall have the right to delegate to said institution 17 beneficiary cadets, or one from each ward of said city; said beneficiaries to remain at said institution four years, unless sooner graduated or otherwise discharged: *Provided*, That no beneficiary cadet shall be permitted to resign from said institution without the consent of the board of supervisors thereof, which consent shall be given only in a case of urgent necessity, such as serious and long protracted ill health, duly declared by the certificate of the surgeon of said institution, or other competent physician, to be of such nature as to render it impossible for said cadet to pursue his studies with advantage.

SEC. 2. The police jury of each parish and the city council of New Orleans, respectively, may, at a regular meeting, elect the number of beneficiary cadets to which said parish or city is entitled as aforesaid, of such age and qualifications as may be prescribed by the board of supervisors for admission to one of the college classes of said university and agricultural and mechanical college, and shall cause the beneficiary so selected to report in person to said institution on or before said 5th day of October: *Provided*, That said beneficiary cadets shall be selected from the number of those residents of said parish or of said city who have not themselves, nor have their parents, the means of defraying the whole of their necessary expenses of maintenance and support at said institution, which facts shall be duly

certified to the president of said institution by the president of said police jury or said city council of New Orleans as true, to the best of his knowledge and belief.

SEC. 3. For the maintenance and board of said beneficiaries in said institution the sum of $10,710 is appropriated annually, for two years, out of any funds in the treasury not otherwise appropriated. * * *

SEC. 4. For the maintenance and board of said beneficiaries in said institution the police juries of the several parishes and the city council of the city of New Orleans are authorized and empowered to appropriate out of their respective treasuries a sufficient sum to defray the necessary expenses of said cadets as appointed under the provisions of this act: *Provided*, That the expense of no cadet shall exceed $250 per annum: *Provided further*, That under no circumstances shall any part of this sum be paid by the State.

SEC. 5. In order to take advantage of the right granted to each parish and to the city of New Orleans in section 1 of this act, each parish and said city shall make an appropriation of $150 per annum out of any money in its treasury for the maintenance and board in said institution of each beneficiary cadet delegated by said parish or said city, said sum to be paid to the treasurer of such institution before the admission of said cadet; and the power to make such appropriation is hereby granted to the police juries of the several parishes and to the city council of New Orleans.

Acts of 1888, No. 100: Gives legislative assent to grants of money by Congress to establish "agricultural experiment stations" and ratifies the resolutions adopted on April 5, 1887, by the board of supervisors of the Louisiana State University and Agricultural and Mechanical College, in connection therewith.

Acts 1892, No. 17: Provides "that full and complete acceptance, ratification, and assent are hereby made" by the State to an act of Congress (July 2, 1862[a]) applying a portion of the proceeds of public lands to the endowment of colleges for the benefit of agriculture and the mechanic arts.

SEC. 1331. The "State Seminary of Learning,"[b] established near the town of Alexandria, in the parish of Rapides, shall be hereafter designated as "The Louisiana State Seminary of Learning and Military Academy," and shall be under the direction and control of fourteen supervisors, who shall be a body corporate under the style and title of the "Board of Supervisors of the Louisiana State Seminary of Learning and Military Academy," with the right as such to use a common seal, and who shall be capable in law to receive all donations, subscriptions, and bequests in trust for said seminary and academy, and to receive all debts which may become the property of said seminary and academy, and to sue and be sued in courts of justice, and in general to do all acts for the benefit of the seminary and academy which are incident to bodies corporate.

SEC. 1332. The governor of the State shall be ex officio president of the board of supervisors, and the chief justice of the supreme court, the superintendent of public education, and [the] State engineer shall be ex officio members of said board. The remaining ten members thereof shall be appointed by the governor, by and with the advice and consent of the senate, for four years, and they shall continue to exercise the duties of their office until their successors are qualified, and they shall be removed by the same power and in the same manner as provided for in their appointment. The governor shall select said remaining members as follows. * * *

SEC. 1334. The board of supervisors shall have power to engage a superintendent and other professors and all other officers necessary for conducting the literary, financial, and civil concerns and interests of the said seminary and academy, and to remove the same at pleasure; to fix and regulate the salaries of the professors and all other officers, tuition fees, and all other charges; to establish rules for the good government and discipline of the students; to prescribe the duties of all officers, servants, and others; to confer diplomas, upon the recommendation of the superintendent and faculty, on students for proficiency in any branch of science or department of learning, and in general to make all rules and regulations which may be deemed necessary for the proper government of the said seminary and academy and for promoting the objects for which it was founded, but nothing in this act shall be construed as obligating the State to pay any debts contracted by the board of supervisors in case they should at any time exceed the appropriation made for the support of said seminary and academy.

SEC. 1335. In the course of study pursued at the said seminary and academy the board of supervisors shall cause instruction to be given in the military branches of science, the students shall be styled "cadets," and shall compose a military corps

[a] August 30, 1890.

[b] Subsequently known, by an act of 1870, as the Louisiana State University. Gen. W. T. Sherman was its first superintendent.

under the command of the superintendent and such other professors as may be assigned to that branch of instruction. They shall constitute a guard to all public property, arms, or munitions now there or which may be hereafter assembled there, and the superintendent shall receipt for all such property, arms, or munitions, and obey all orders relative to their preservation or delivery he may receive from the governor of the State.

SEC. 1336. The governor of the State shall cause to be issued to the superintendent a commission as colonel, and to such other professors as may be assigned to command commissions as majors, captains, or lieutenants, according to the strength of the command; that such commissions shall not entitle the holders to any rank in the militia of the State or to any claims whatever to compensation other than what is attached to their positions as professors.

SEC. 1340. The board of supervisors shall at their first meeting elect a secretary, who shall record, attest, and preserve their proceedings, and a treasurer, who shall give bond for the faithful performance of his duties, and in such sum as shall be determined by the board.

SEC. 1341. It shall be the duty of the board of supervisors, immediately after their organization, to prescribe the course of studies to be pursued at the seminary, the number of professors, and to draw up a project of the system so adopted.

SEC. 1342. The board of supervisors shall at all times conform to such laws as the legislature may from time to time enact for their government, and the said seminary shall in all things and at all times be subject to the control of the legislature; and the said board of supervisors shall make an annual report to the legislature during the first week of the session, embracing a full account of the disbursements and a general statement of the condition of said seminary.

SEC. 1343. No gambling house or drinking saloon or store for the barter or sale of any kind of merchandise whatsoever shall be established within 2 miles of said institution.

SEC. 1344. It shall be the duty of the board of supervisors of the Louisiana State Seminary of Learning and Military Academy to require the professor of engineering and the professors of chemistry, mineralogy, and geology to spend not less than four months of every year in making jointly a topographical and geological survey of the State of Louisiana till the whole work is completed to the satisfaction of the legislature.

SEC. 1345. It shall be the duty of said professor of engineering and chemistry to make, on the 31st day of December of each year, detailed reports, with the necessary maps and diagrams of their survey, to the superintendent of said institution, and it shall be the duty of said superintendent to forward said reports with his own annual report to the board of supervisors for transmittal to the legislature in the annual report of said board.

SEC. 1346. It shall be the duty of the superintendent of said institution to consider the topographical and geological survey of the State as herein provided for as a part of the regular duties of said institution and to superintend the same accordingly.

SEC. 1347. Said professors of engineering and chemistry * * * be allowed each the sum of $500 for necessary traveling expenses while in the performance of said duties, to be paid to the treasurer of said institution on the warrant of the president or vice-president of said board of supervisors.

Acts 1880, No. 87. SECTION 1. There shall be established in the city of New Orleans a university for the education of persons of color, to be named and entitled the "Southern University."[a]

SEC. 2. The said university shall be governed and directed by a board of trustees, to be composed of twelve members, who shall be appointed by the governor by and with the advice and consent of the senate: *Provided*, That at least four of said board of twelve shall be appointed from the colored race; vacancies shall be filled in a similar manner. The members of the board shall be appointed to serve during four years, but any member failing to attend two successive regular meetings of the board shall, except in case of sickness or other good cause, be considered no longer a member of said board, and the governor, on receiving official notice of such absence from the president of the board, whose duty it shall be to report the same, shall immediately fill the vacancy in the manner prescribed.

SEC. 3. Six members of said board, at a stated or regularly called session, shall constitute a quorum.

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[a] The constitution (art. 256) recognizes the Louisiana State Normal School * * * and the Southern University, now established in the city of New Orleans for the education of persons of color; and in the case of the Southern University no annual appropriation for maintenance and support shall exceed $10,000.

SEC. 4. Said board of trustees shall be empowered to elect from among their own members a president and vice-president of the board, a secretary, and treasurer; the treasurer shall give bond in the sum of $10,000 for the faithful performance of his duties, and shall pay out money only upon warrants issued by the president of the board, countersigned by the president of the faculty: *Provided*, That the treasurer shall not be a professor or other officer or employee of the university, and shall not be interested, directly or indirectly, in any contract for furnishing supplies or articles of any kind to the university: *Provided further*, That at the discretion of the board the two offices of secretary and treasurer may be combined in one person.

SEC. 5. Said board of trustees shall be empowered to enact general rules and by-laws for the said university in all its departments, and to elect a president of the faculty, professors, and teachers, and determine their compensation; also, all officers and employees that may be necessary, and prescribe their duties and compensation.

SEC. 6. Said university shall be organized as a corporation under the general laws of the State of Louisiana, and the trustees thereof shall be capable in law to receive all donations, trusts, and bequests made to the "Southern University," and manage the same, to sue and be sued in courts of justice, and to do all other acts in the premises incident to such trustees.

SEC. 7. There shall be established by said board of trustees a faculty of arts and letters, which shall be competent to instruct in every branch of a liberal education, and under rules of and in concurrence with the board of trustees, to graduate students and grant all degrees appertaining to letters and arts known to universities and colleges in Europe and America on persons competent and deserving the same. There may also be established by said board of trustees a department of law and medicine. The department of law shall consist of three or more learned professors, learned and skilled in the practice of law in this State, who shall be required to give a full course of lectures on international, constitutional, commercial, and municipal or civil law, and instruction in the practice thereof. The medical department of the university shall consist of not less than three professors. They shall be appointed by the board of trustees from regular practicing physicians of the State. The degree of bachelor of law and doctor of medicine, granted by them, shall authorize the person on whom it is conferred to practice law and physic and surgery in this State (as amended by act 90, 1888).

CHAPTER II.

FRANKLIN'S INFLUENCE IN AMERICAN EDUCATION.

By FRANCIS NEWTON THORPE.

The riches of a country are to be valued by the quantity of labor its inhabitants are able to purchase, and not by the quantity of silver and gold they possess.—*Franklin.*

Neither must we cast a slight upon education, which is the first and fairest thing that the best of men ever have, and which, though liable to take wrong direction, is capable of reformation. And this work of reformation is the great business of every man while he lives.—*Plato.*

I think a general government necessary for us, and there is no form of government that may not be a blessing if well administered; and I believe, further, that this is likely to be well administered for a course of years, and can only end in despotism, as other forms have done before it, when the people shall become corrupted as to need despotic government, being incapable of any other.—*Franklin.*

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I.

THE ARTISAN AND THE ART.

The artisan.

Among the creative minds of the eighteenth century was one whose sanity has profoundly influenced posterity. He was an American, the new world's gift to the old. It has been common to praise him these hundred years. He was a man of the people and was familiar with all sorts and conditions of men. His ancestry enrolled a long line of freemen, when to be free by right was a greater honor than a patent of nobility. Through the centuries of their enjoyment of a free estate his ancestors followed habits which made them thrifty and wise. For more than four score years of the fertile eighteenth century he grew with its growth, and he ripened in the closing years of its rich maturity. Among his contemporaries, and they included Hume and Voltaire, he was assigned a unique place by common consent. To men whether of low or of high degree his relations were normal; indeed he was so much the cosmopolitan that his name before his death became the American name most familiar to Europeans, and in his own country as familiar as Washington's.

Self-adjustment.

Yet this man, this child of an ancient line of English franklins, this plain American who stood before Kings, was somewhat unconventional in his education, for he became a wise man by teaching himself. His records of the process of his self-culture remain the maxims of a world experience. Intimately knowing himself, he knew all men, and therefore

his comments on his own education have generic value. The mechanics of education, which distinguishes the modern systems, he knew well and prized little. Though they largely fill the eye of later generations, they did not blind him. He never suggested any device for shortening the distance between points measured on a straight line, nor to the armory of teaching did he contribute any instrument wherewith one may learn without thinking. To him life was a series of adjustments, and education was subjective because it is a process in self-adjustment. With him self-culture is a series into eternity and man is given a place in the file not of the worst rank. Unlike some of his eminent contemporaries he was not secretive. His experience like life itself was a property of man and akin to the experiences of others, therefore it had a general value, and its utilities truly comprehended contribute to the general welfare.

Unselfishness.

His unselfishness was of the kind that we see in trees and plants, which fruit in due season with no thought of making the human race their debtors. As the race cherishes trees and plants, so, and in greater degree, should it cherish the memory of its own members who have produced wholesome ideas and have left good works. To such as do these things education is not a secret art. It is a process open to all men. It is a condition, not an aspect of life. The economy of education is a moral thrift, and an individual as well as a social function. It is not a mere academic afterthought, an epilogue to reality spoken by the speculatist. The man of whom I am speaking was an economist, for he was the first to teach the world that the unit of the measure of value is labor: and he was among the first to confute the ancient and false doctrine that wealth consists only in the possession of land, of precious metals, of jewels and other chattels. He learned his economy by large and intimate association with his fellow-men. Obscure and isolated data were not sufficient to support his ideas. All the world was the parish of his intellection; he was a servant to truth. His work, like that of Homer, was as simple as art. His process in self-culture was natural.

Moral thrift.

This man was Benjamin Franklin. As Hume stands to philosophy, so stands Franklin to the world of affairs. He taught Malthus, Ricardo, and Adam Smith, because he knew men. His aptest scholar was himself. Nor did he omit that adjustment too often missed by men—the provision for the spread of his ideas. Yet he did not assume the oracular, though he proved to be a prophet. Nations have prospered by adhering to his principles. The general welfare of man has reached a higher level because he lived. His name is identified with the founding of institutions whose utility insures their permanency, and he was wise enough to know that the most permanent foundations in the world are educational. The public library which he founded in Philadelphia—the first in America and the parent of thousands of others—has contributed to the education of the people of the United States. The American Philosophical Society, the oldest learned society in this country, was founded by him and has been a coordinating force in furthering the cause of all forms of knowledge. The University of Pennsylvania, in the inception of which he was the leading spirit, has trained nearly a hundred thousand men. Millions of men, ignorant of the wisdom of Adam Smith, of John Stuart Mill, and of later economists of eminence, have been taught habits of thrift and have better provided for their wives, their children, and themselves by practicing the homely precepts of Poor Richard. Who can estimate that multitude, in all lands blessed with civilization, who have found pleasure, encouragement, and instruction in reading and rereading the first of American biographies?

The theme.

It can not be unprofitable, therefore, to trace the principles and narrate the history of that educational process and that economy with which Franklin is identified. He who looks for simplicity in

modern educational methods is soon overwhelmed with dismay. On account of the system, the books, and the teachers he can not see the scholars. Theories and discussions often exclude economy. Not soldiers, but strategy and tactics possess the field. The tenant neglects to pay his rent in order to discuss it. The laborer forsakes his hire in order to speculate upon it. A system of education instead of being a natural process may be made a tyrannical schedule. It may become an exercise with books instead of an evolution of a soul by self-culture.

Peers.

Franklin stands easily with the first; with Homer, from whom all later poets take inspiration; with Plato, who distributes the germens of philosophy; with Cæsar, who taught war and politics with equal ease; with Hume and Burke, who examined the foundations of politics in the eighteenth century and revised the definitions of the state. With these stands Franklin, the apostle of individuality, upon which the modern representative state rests. Given the individual, and, according to Franklin, you have the state. The culture of the individual is a measure of the culture of the state. Thus he is the Socrates of modern times; the American Socrates.

Of permanent interest.

Franklin's ideas of education and economy and their influence on America are the subject of my story. In outlining his ideas of education, I shall touch on his economic notions, for a man's political economy must be understood before attempting to understand his ideas on other subjects. The interests of self-culture are permanent, and their direction and administration determine the course of public opinion. The influence of Franklin's self-culture is immeasurable: its regulating principles may for a time be obscured, but, like other principles, they ultimately prevail.

Birth and breeding.

He tells us that he "was born and bred in poverty and obscurity, from which he emerged to a state of affluence and some degree of reputation in the world, and that he went through life with a considerable share of felicity." He frequently reflected on his worldly prosperity and was happy to record that his family was of homely but goodly stock of the middle class of ancient England, and that of his maternal grandfather, Peter Folger, even so distinguished a divine as Cotton Mather had made honorable mention as "a godly, learned Englishman."

He was not sent to college, because his father considered a college education too expensive; "the mean living many so educated were afterwards able to obtain" was a sufficient proof to the elder Franklin that worldly success was not surely to be won after so great an expense.

Franklin's childhood training.

To understand Franklin's notions of self-culture it is necessary to trace his own. He remembered in his old age how his father "at his table liked to have, as often as he could, some sensible friend or neighbor to converse with, and always took care to start some ingenious or useful topic for discourse which might tend to improve the minds of his children. By this means he turned our attention to what was good, just, and prudent in the conduct of life." This insight into his childhood shows how early in life his mind was impressed with the paramount importance of things ingenious or useful, and to the end he judged of the value of men's labors by their usefulness to mankind.

When it was to be decided at what employment he should be put, his father sought a practical solution of the problem by taking him to walk with him "and see joiners, bricklayers, turners, braziers, etc., at their work, that he might observe my inclination and endeavor to fix it on some trade or profession that would keep me on land. It has ever since been a pleasure to me to see good workmen handle their tools, and it has been often useful to me to have learnt so much by it as to be able to do some trifling jobs in the house, when a workman

could not readily be got, and to construct little machines for my experiments while the intention of making the experiment was fresh and warm in my mind."

The books he read when a child.

From a child he was fond of reading, and the little money that came into his hands he spent for books. It is natural for a man to insist that the education of the young should be like that which he received himself. The books which Franklin read in his boyhood remained in his opinion the proper books for all children to read. The Pilgrim's Progress, Burton's Historical Collections, De Foe's Essay on Projects, and Dr. Mather's Essays to do Good had an influence on some of the principal events of his life. It may be said that two of these books, Pilgrim's Progress and De Foe's Essay on Projects, are among the most fertile books of all ages. In evidence it may be said that, except the Bible, Pilgrim's Progress is more freely read throughout the world than any other book, and De Foe's Essay on Projects contains intimations and projections of nearly all the most salutary reforms in morals, in law, and in practical ethics that have blessed the world since it was written.

It was his bookish inclinations which made him a printer, and to the end of his life he illustrated, whenever he had occasion to speak or write on such matters, how his training as a printer determined his ideas in education.

His mind was universal, and he was therefore interested in all human affairs. As a boy he took a peculiar interest in the drama, and throughout life was fond of the theater. On this mimic stage he saw the larger action of life epitomized, and from the conduct of the players on the stage he was doubtless able to draw conclusions of value to him in his large, diplomatic action. Throughout his works are constant references to the plays of the day, and he is fond of illustrating a letter to a friend by a passing remark on some popular piece. His boyhood was cast in the age of ballad mongery, and to the end of his days he enjoined that kind of scribbling. The petty vender of street ballads is the potent illustration in our day of the persistency of this kind of writing.

A bookish boy would make friends of bookish lads, and one John Collins, with whom he early became acquainted, enabled him to enter upon a new epoch in life—the epoch of conversation. Between these boys there were long controversies on the passing questions of the day, and the various theories in the projection of which youth is so fertile. Collins denied "the propriety of educating the female sex in learning and their abilities for study." Franklin took the opposite side and seems to have converted himself into an advocate of woman's education. This controversy, left unsettled in conversation, was carried on by correspondence, and Franklin thus began as a writer.

Three or four letters on a side had passed, he tells us, when his father happened to find the papers and read them. Without entering into the discussion, he took occasion to talk to his son about the manner of his writing; observed that, though he had the advantage of his antagonist in correct spelling and pointing (which young Franklin owed to the printing house), he fell far short in elegance of expression, in method, and in perspicuity, of which he convinced his son by several instances. Franklin saw the justice of his father's remarks, and thence grew more attentive to style in writing, and determined to improve his own.

This proof of his ability to compare himself with others is significant, for it illustrates one of the chief powers of his mind. He was quick to notice points of superiority or of inferiority, and, being ambitious to excel, proceeded in a practical way to overcome his deficiencies. His method became, in his opinion, the right procedure for all other persons in a similar condition, and it was later formulated by him as a method in education. It was in brief to imitate the best writings of the day. Happily for him Addison was then giving the Spectator to the world, and an odd volume, the third, fell into his hands. The reading of it produced a sensation new

Improves in composition.

to him; he read it again and again and was delighted, and he afterwards laid down the proposition that all children could derive the same benefit from the Spectator which he had derived.

His method was simple, yet original; it was to read the Spectator and to rewrite it from memory; to compare his version with the original, and to correct and rewrite it until his own composition was as perfect as that of Addison himself. This taught him the limitations of his own vocabulary, and led him afterwards to insert in his plan for the education of youth a provision for the study of the dictionary. In his Sketch of an English School he advises for the use of first or lowest class, to which children of the age at which he began reading the Spectator would belong, that "a vocabulary of the most usual difficult words might be formed with explanations, and they might daily get a few of those words and explanations by heart, which would a little exercise their memories; or at least they might write a number of them in a small book for the purpose, which would help to fix the meaning of those words in their minds and at the same time furnish everyone with a little dictionary for his future use."

His own boyish experiences taught him his need of a vocabulary, of his using the word exactly responsive to the thought, the best word that could be found. This opinion, formulated in the Sketch of an English School for the Consideration of the Trustees of the Philadelphia Academy, to which I shall again refer, was plainly the result of his experience in self-education; and when he tells us in his Autobiography that he made verses because their composition laid him under the constant necessity of searching for a variety of words and for words exactly suited to the thought, and that he turned tales into verse, and after he had forgotten the prose turned them back again, and in this manner, by comparing his work afterwards with the original, discovered his faults and amended them, we catch a glimpse of the value of comparison in education; that is, comparison made for practical purposes. So perfectly did this scheme work that, as he tells us in a delightful way, he sometimes had the pleasure of fancying that in certain parts of small import he had been lucky enough to improve the method or the language of the original, and this encouraged him to think that he might possibly in time come to be a "tolerable English writer."

Why he wrote verses.

To reach this height he was extremely ambitious, and to show how such a result was possible for anyone who, like himself, was an indented apprentice, he records that his time for making these exercises and for reading was at night after his work was done or in the morning before it began or even on Sundays when he was alone, and, as he rather disliked to attend church, he stayed at home and eased his conscience by perfecting himself in English style. Certainly the judgment of posterity has awarded him high rank in English composition. He takes pains to tell us how his self-education was a success and how all other people, if they choose, may educate themselves and become "tolerable English writers."

He studies arithmetic and logic.

He soon discovered his ignorance of mathematics, and at 17 was old enough to be ashamed of it. He overcame his deficiency as he had overcome that in composition. He took Cocker's Arithmetic and went through the whole by himself "with great ease." Not only arithmetic, but books of navigation (Seller's and Sherny's) were studied in the same manner, but having no practical use for the higher mathematics he never pursued them. About this time he read Locke On the Human Understanding, and the Art of Thinking, by Messrs. du Port Royal.

Intent on improving in language, he found an English grammar, Greenwood's, at the end of which "there were two little sketches of the arts of rhetoric and logic, the latter finishing with a specimen of a dispute in the Socratic method,"

and he soon afterwards procured Xenophon's Memorable Things of Socrates. He had made a discovery. Addison had charmed him, but Xenophon captivated him, and from Xenophon he learned the greatest lesson of his life. "From that time," says he, "I adopted it, dropped my abrupt contradiction and positive argumentation, and put on the humble inquirer and doubter."

He anticipates the age of books.

Again and again from his Autobiography, and from other sources, we learn how, through his long life, he avoided dogmatic disputation and won his cause quite as much by his mastery of the art of doubting and questioning as by his powers of confutation. He was a born diplomat and his sense of the principles of diplomacy was thus early manifest. So important did the Socratic method become, in his ideas of education, that in drawing up his Proposals Relating to the Education of Youth in Pennsylvania, out of which grew the University of Pennsylvania, he encouraged all those studies which involve conversation and writing. He would acquaint youth with the best models among the ancients. But his diplomatic experience made him familiar with the feebleness of mere talk, and he concluded that as modern political oratory is chiefly performed by the pen and press, its advantages over the ancients in some respects ought to be shown, as, for instance, that its effects are more extensive and more lasting.

Thus he anticipated the age of books, newspapers, magazines, and the numerous productions of pen and press in later times, and was fully conscious of the enormous and superior power of the printed page over the spoken word; so from his own experience he advocated studies by which the human mind is most widely reached and most powerfully influenced. His own writings are frequently in the Socratic method.

In his Sketch of an English School he advocated the reading of short pieces by the master, not exceeding the length of a number in the Spectator, with the proper modulations of voice, due emphasis, and suitable action where action is required, and that the youth should imitate the manner of the original. The beauties of the piece were to be discussed by the instructor, and, from a variety of readings by which good styles of all kinds were made known, children should learn to imitate such excellence and be able readily to put their thoughts into the form best adapted to accomplish the end.

His rule of modesty.

Having discovered the value of the Socratic method, he next discovered the value of expressing himself in terms of modest diffidence, and to the end of his life he was noted for the modesty with which he advanced his opinions. Perhaps no illustration of this quality is finer than his speech read to the convention of 1787 in its closing hours. Franklin himself was too feeble to deliver it, and his colleague, James Wilson, read it for him. Perhaps this speech gave us the Constitution of the United States:

I confess that there are several parts in this Constitution [said he] that I do not at present approve, but I am not sure that I shall never approve them; for, having lived long, I have experienced many instances of being obliged by better information or fuller consideration to change opinions, even on important subjects, which I once thought right, but found to be otherwise. It is, therefore, that the older I grow the more apt I am to doubt my own judgment and to pay more respect to the judgment of others. Most men, indeed, as well as most sects in religion, think themselves in possession of all truth, and that whenever others differ from them it is so far error.

And then he characteristically points his speech by a happy illustration. Steele, a Protestant in education, tells Pope—

that the only difference between our churches in their opinions of the certainty of their doctrines is that the Church of Rome is infallible and the Church of England is never in the wrong. But though so many private persons think almost as highly of their own infallibility as they do of their sect, few express it as naturally as a

certain French lady, who in a dispute with her sister said: "I do not know how it happens, sister, but I meet with nobody but myself that is always in the right"—"*il n'y a personne que moi qui a toujours raison.*"

He learns to compromise.

It is not often that the lessons of childhood regulate one's later life, but the Socratic method of Franklin's boyhood determined his whole later attitude toward public questions, and probably, more than any other characteristic of the man, made him the most successful diplomat that our country has had. Frequently, in addressing his younger friends, he laid down the lesson of modest diffidence as highly conducive to practical success in life. If we advance our sentiments too dogmatically—so ran his defense for this training—we may not only provoke contradiction, but prevent a candid attention. Thus he bases his philosophy of diffidence upon its utility.

The facility with which he undertook his self-education in literature and in mathematics characterizes all his after efforts in practical affairs. Throughout his Autobiography he is fond of mentioning the advantages of self-training. The principle which won success in rewriting a Spectator he applied in business, and soon detected its virtues in practical affairs. Like all self-educated men, his experience crystallized in maxims, some of which he formulated himself, but nearly all of which he took from the experience of mankind at large.

Like Daniel Webster, Franklin made great use of the labor of others, and it is interesting to note his account of the principles which influenced the course of his life.

He becomes a doubter.

My parents [he writes] had early given me religious impressions, and brought me through my childhood piously in the dissenting way. But I was scarce 15 when, after doubting by turns several points, as I found them disputed in the different books I read, I began to doubt of the revelation itself. Some books against deism fell into my hands. They were said to be the substance of the sermons which had been preached at Boyle's lectures. It happened that they wrought an effect on me quite contrary to what was intended by them, for the arguments of the deists which were quoted to be refuted appeared to me much stronger than the refutations; in short, I soon became a thorough deist.

His habit of doubting, and notably in cases involving difficulties which he could not overcome by an adequate reply, bred in him not only a love of experiment to test the nature of phenomena, but led him to remain in doubt when he was unable to obtain a satisfactory explanation. He was one of the greatest of experimentalists, and, as might be expected of one whose whole philosophy was utilitarian, his life is replete with apt illustrations of the utility of experiments, so that one of his biographers is able to give several pages to the mere enumeration of his discoveries, all of which were of a useful kind, such as the deliverance of mankind from smoky chimneys, the practical means of ventilation, numerous discoveries in electricity, the determination of the temperature of the Gulf Stream, the consumption by a fire of its own smoke, and the construction of water-tight compartments in ships.

The value of observation in education.

So strong was his habit of observation that in his various journeys across the ocean, in the colonies, in Great Britain and Ireland, and on the Continent, he was always alert to detect not only the wants of the people in whatsoever region he was traveling, and the means for supplying those wants, but also to give minute attention to natural history, as when on his first voyage from Philadelphia to England, in 1726, being then in his twentieth year, he records in his journal changes in the color of dolphins, and experiments with them, living and dead, to determine the cause of the loss of their luster. A few days later he made observations on a shellfish found upon a floating weed in the Gulf Stream, and records that, in order to strengthen his conjecture, whether his opinions with respect to the development of this crea-

ture were true, he resolved to keep "the weed in salt water, renewing it every day till he came on shore, by this experiment to see whether any more crabs will be produced or not in this manner." His own powers of observation and comparison being of the highest order, he naturally imputed to the effects of such powers, when exercised by other men, many of the advantages which he himself derived from them. This doubtless led him in his Plan for the Education of Youth in Pennsylvania to encourage experimentation, that by instruction in mechanics men might be informed "of the principles of that art by which weak men perform such wonders, labor is saved, and manufactures expedited."

And again, touching agriculture, a subject which received careful attention from his eminent contemporaries, Washington and Jefferson, having affirmed that "natural history will also afford opportunities of introducing many observations relating to the preservation of health, which may be afterwards of great use," he added: "While the students are reading natural history, might not a little gardening, planting, grafting, and inoculating be taught and practiced, and now and then excursions made to the neighboring plantations of the best farmers, their methods observed and reasoned upon for the information of youth, the improvement of agriculture being useful to all and skill in it no disparagement to any?"

Let there be experiment.

We should not forget that the complexity and intensity of modern life compel a curriculum in technical instruction in our colleges and universities which could not possibly be called for in Franklin's time. He lived before the manufacturing epoch, before the age of rapid transportation and the application of electricity and steam to the wants of man, therefore we need not expect to find in his Proposals for the Education of Youth the equipment of a modern chemical, mechanical, or biological laboratory. In his time the chief occupation of Americans was farming, and he, like Washington and Jefferson, advocated all possible experiments which would improve this employment and greatly add to its productivity. But the principle by which he was animated was the same as that which, applied in later times, has equipped the best laboratories.

The first step in science is to doubt, and Franklin at 18 had taken that step. From his own reason and observation he began to formulate the principles or maxims of the moral world. An experimenter by birth, he was conventional in his manner both of acquiring and giving knowledge. He adapted himself to the conditions about him and escaped eccentricity, so that he was enabled to influence the world by his principles of life when another man, equally intellectual, but neglecting to adapt himself to the conventions of society, would have had no influence.

Doctrine of "the general welfare."

His sociology was founded on his conception of the general welfare, which to him was the great problem of life. It is to him we are indebted for the established use of the phrase "the general welfare."[a]

His large conception of humanity made him a citizen of the world, and his ideas of morality were founded upon his interpretation of the general welfare. "I grew convinced," says he, "that truth, sincerity, and integrity in dealings between man and man were of the utmost importance to the felicity of life, and I formed written resolutions, which still remain in my journal book, to practice them ever while I lived."

Observation had taught him the utility of virtue, and it may be said that, had there been no system of morality in the world when he was born, he would have evolved one—would have founded it upon experimentation, and his experimentation would have been based solely upon the doctrine of utility.

[a] For the history of this phrase, see my Constitutional History of the United States, 1765-1895, Vol. III, Book VI, Ch. VI.

We are not surprised to learn that revelation had little weight with him; that he believed that some actions should be forbidden because they are not beneficial to man, and that they should not be considered injurious to man because they are forbidden. In other words, all that promotes the general welfare is good; all that hinders it is bad. Yet his childhood's teaching had bred in him a belief in the existence of a God. To a primary conception that Divine Providence controls the destiny of the human race he joined the utilitarian doctrine that truth, sincerity, and integrity are virtues because they are of the utmost importance to the felicity of life; therefore in his Sketch of an English School he would have all lessons chosen for reading "contain some useful instruction whereby the understanding of youth may at the same time be improved." He would have Dr. Johnson's First Principles of Morality read by scholars in the fifth form, "and explained by the master, to lay a solid foundation of virtue and piety in their minds." And in his Proposals for the Education of Youth in Pennsylvania he remarks: "As to their studies, it would be well if they could be taught everything that is useful and everything that is ornamental. But art is long, and their time is short. It is therefore proposed that they learn those things that are likely to be most useful and most ornamental, regard being had to the several professions for which they are intended."

He would teach morality "by descanting and making continual observations on the causes of the rise and fall of any man's character, fortune, and power mentioned in history; the advantages of temperance, order, frugality, industry, and perseverance."

It is to be noticed that he valued temperance, order, and frugality, and the other virtues, as advantageous to the general welfare, and did not recommend the study of morality for its own sake. Because the virtues were so advantageous, he declared "the general natural tendency of reading good history must be to fix in the minds of the youth deep impressions of the beauty and usefulness of virtue of all kinds, public spirit, and fortitude."

The value of historical studies.

Having laid down the proposition that virtue is advantageous and that it may be taught by examples from history, he turned to the subject of religion, and advocated its inclusion in the curriculum for the same reason that he had received it into his own philosophy. "History will also afford frequent opportunities of showing the necessity of a public religion from its usefulness to the public; the advantages of a religious character among private persons; the mischief of superstition, and the excellency of the Christian religion above all others, ancient or modern."

In other words, Franklin found religion in the world and he concluded that it is a necessary element in promoting and securing the general welfare. It should be observed because necessary; but, unlike Emerson, he would not have produced a system of religion had there been none in the world until his time. Having admitted by force of his own self-experimentation the necessity of religion in society, he deduced its usefulness to the public, and this giving occasion for another indulgence in comparison, he at once concluded that "the Christian religion above all others, ancient or modern, was the most excellent." Had Franklin been born in India, he probably would have advocated the religion of Buddha.

The notion that history affords frequent opportunities of showing the necessity of a public religion from its usefulness to the public, which is laid down in his Proposals for the Education of Youth in Pennsylvania of 1740, had been anticipated thirty years before, as he tells us in his autobiography. His observations before his twentieth year having taught him the advantages to be derived from ingenious acquaintance, he organized the famous club in Philadelphia called the "Junto," which met on Friday evenings. He drew the rules for its procedure. Three classes of subjects

He founds the "Junto."

were to be discussed by the company—morals, politics, and natural philosophy—for these three comprehended all the utilities, and the wise understanding of the principles of them would contribute to the general welfare.

In making up the Junto he took men who were successfullly engaged in the ordinary pursuits of life. There was a copier of deeds, a surveyor, a shoemaker, a mechanic, a merchant's clerk, several printers, and a "witty gentleman of fortune." He would have us believe that one common interest, the love of books, held these men together. The symbol of his philosophy of self-culture is a book. Franklin and Dr. Samuel Johnson were as little alike as any two men of their time in their ideas of politics and religion; but they were both self-educated men, and the means of their education was books. It was Dr. Johnson who said: "Read anything five hours a day and you will soon be learned." Franklin and Johnson were the two great men of the eighteenth century who owed their power and place in life to their love of books. Franklin would have agreed with Carlyle, that "the best university is the best collection of books."

The place of books in his scheme.

The Junto at Philadelphia was the first book-loving, book-making, and book-collecting body of men in America, for out of its labors grew the Library Company of Philadelphia, which became the parent of all the circulating libraries of America. The place of books in Franklin's philosophy of culture is almost paramount. He recognized the lasting power of the printed page, and therefore, in his scheme for the instruction of children, he elaborates his theory of education in making provision for an exhaustive practice in composition and the reading of books. We must not forget that at the time when the Junto was formed the ability to read and write was not common in the colonies; there were no American libraries, and books were scarce and expensive.

Each of the six classes into which he divides his ideal school was chiefly engaged in composition and reading. His first, or lowest, class should read pieces such as Croxall's Fables, which were to be read aloud to them by the master and the difficult words explained. It was this class which was to exercise its memory by getting new words daily and by making a "little dictionary for future use." In the study of the Fables great care was to be taken for improvement in orthography by learning English grammar, and every effort was to be made to secure "good spellers very early." Like all printers, Franklin had a horror of bad spelling; "for it is a shame for a man to be so ignorant of this little art in his own language as to be perpetually confounding words of like sound and different significations." This was a child's first equipment—to understand a book.

Teach reading with attention.

The second class was "to be taught reading with attention, and with proper modulations of the voice according to the sentiment and the subject." It is a pity so many teachers of our own day are almost in total ignorance of the inexpressible value to the child of understanding what he reads. One of the saddest errors in primary education is the omission to teach "reading with attention, and with proper modulations of the voice according to the sentiment and the subject."

The understanding of the lessons in the second class would require them to give an account, first, of the parts of speech and the construction of one or two sentences, which would oblige them to recur frequently to their grammar, and to fix its principal rules in their memories; "next, of the intention of the writer or the scope of the piece, the meaning of each sentence and of every uncommon word. This would early acquaint them with the meaning and force of words, and give them that most necessary habit of reading with attention." It was to this class that the master was to point out all the beauties and lessons of the selections. Variety of subject and style, in prose and verse, stories, sermons; the speeches of generals to their soldiers, which comprised the most interesting portions of Plu-

tarch's Lives, a book with which Franklin had become familiar in his boyhood; speeches in tragedy and in comedy, the mimic world which he loved; odes, satires, letters, and blank verse, all comprising the various equipment of the man who would express himself readily to his fellow-men, were to constitute the reading lessons.

A modern series of readers shows at a glance the world's opinion of Franklin's plan for the instruction of classes by well-chosen lessons for reading, and I venture to say that the one book in our public schools which conveys, or can be made to convey, the greatest amount of training is the reading book.

The value of reading as a study.

In order that the children might read with attention, Franklin required—

That they should first study and understand the lessons before they are put upon reading them properly, to which end each boy should have an English dictionary to help him over difficulties. When our boys read English to us we are apt to imagine they understand what they read, because we do, and because it is their mother tongue. But they often read as parrots speak, knowing little or nothing of the meaning. And it is impossible that a reader should give the due modulation to his voice, and pronounce properly, unless his understanding goes before his tongue and makes him master of the sentiment. Accustoming boys to read aloud what they do not first understand is the cause of those even, set tones so common among readers, which, when they have once got a habit of using, they find so difficult to correct, by which means among fifty readers we scarcely find a good one. For want of good reading pieces published with a view to influence the minds of men, for their own or the public benefit, lose half their force. Were there but one good reader in a neighborhood, a public orator might be heard throughout a nation with the same advantages, and have the same effect upon his audience, as if they stood within the reach of his voice.

Here, as ever, he bases his idea of culture upon the advantages to be derived in promoting the general welfare. He would have boys learn reading in order to understand human sentiment, and that it might influence them as if it had been spoken to them, for a book in his opinion had no right to exist unless it contributed to the public benefit.

The Junto was almost as advantageous to him and his associates as any university of the time could have been. His conception of the methods and possibilities of self-education was large, and the active interest which each member of the club showed in its prosperity demonstrated to him the advantage, in general education, of the same methods which made the Junto prosperous. Its controlling principle was that of self-interest; its rules and usages were evidently derived from Franklin's recollections of Cotton Mather's benefit societies. Mather had greatly influenced Franklin in youth and had originated a system of neighborhood guilds, or benefit societies, which were formed in the several Congregational churches directly under Mather's influence. These societies, to twenty of which Mather himself belonged, were organized for the purpose of promoting the general interests of religion in Massachusetts, and Mather had drawn up "certain points for consideration;" that is, rules or orders for the management and to indicate the scope of the organizations. The rules for the government of Mather's societies are interesting as the precedent for the rules of the Philadelphia Junto.

Cotton Mather's benefit societies in New England.

The "points of consideration" were the following:

Questions for debate.

1. Is there any remarkable disorder in the place that requires our endeavor for the suppression of it; and in what fair, likely way may we endeavor it?

2. Is there any particular person whose disorderly behavior may be so scandalous and so notorious that we may do well to send unto the said person our charitable admonitions? Or are there any contending persons whom we should admonish to quench their contentions?

3. Is there any special service to the interest of religion which we may conveniently desire our minister to take notice of?

4. Is there anything we may do well to mention unto the justices for the further promoting good order?

5. Is there any sort of officers among us to such a degree unmindful of their duty that we may do well to mind them of it?

6. Can any further methods be devised that ignorance and wickedness may be chased from our people in general, and that household piety in particular may flourish among them?

7. Does there appear any instance of oppression or fraudulence in the dealings of any sort of people that may call for our essays to get it rectified?

8. Is there any matter to be humbly moved into the legislative power to be enacted into law for public benefit?

9. Do we know of any person languishing under sore and sad affliction; and is there anything we may do for the succor of such an afflicted neighbor?

10. Has any person any proposal to make for our own further advantage and assistance, that we ourselves may be in a probable and regular capacity to pursue the intention before us?

The benefit societies suggest the Junto.

In one of Mather's benefit societies Franklin, as a boy, had heard discussions of a practical character bearing upon the immediate concerns of life about him, and the impression on his mind was permanent. Instructed by this boyish experience, he in 1730 organized the Junto with a purpose similar to that of the societies—the improvement of its members and their fellow-citizens in virtue, knowledge, and practical wisdom. He did not seek to teach religion, but to encourage the acquisition of useful knowledge in morals, politics, and natural philosophy. The membership in the Junto was limited. A candidate must declare his love for mankind in general, his belief in freedom of thought, his love of truth for truth's sake, and his desire to obtain knowledge without prejudice, and, perhaps of chiefest importance, his willingness to communicate to others all kinds of useful information within his power.

The Junto met on Friday evenings and its rules illustrate Franklin's theory as to the impolicy of "abrupt contradiction and positive argumentation" and the wisdom of "modest diffidence" in "a humble inquirer and doubter." Therefore instead of prescribing dogmatic rules, or, as we would say, adopting a constitution and by-laws, the Junto at the opening of its meetings read twenty-four queries which, it will be noticed, may be grouped under the three headings of morals, politics, and natural philosophy. These queries were:

Order of business in the Junto.

Have you read over these queries this morning, in order to consider what you might have to offer the Junto touching any one of them, viz:

1. Have you met with anything in the author you last read remarkable or suitable to be communicated to the Junto, particularly in history, morality, poetry, physic, travels, mechanic arts, or other parts of knowledge?

2. What new story have you lately heard agreeable for telling in conversation?

3. Hath any citizen in your knowledge failed in his business lately, and what have you heard of the cause?

4. Have you lately heard of any citizen's thriving well, and by what means?

5. Have you lately heard how any present rich man, here or elsewhere, got his estate?

6. Do you know a fellow-citizen who has lately done a worthy action deserving praise and imitation, or who has lately committed an error proper for us to be warned against and avoid?

7. What unhappy effects of intemperance have you lately observed or heard; of imprudence, of passion, or of any other vice or folly?

8. What happy effects of temperance, of prudence, of moderation, or of any other virtue?

9. Have you or any of your acquaintance been lately sick or wounded? If so, what remedies were used, and what were their effects?

10. Whom do you know that are shortly going on voyages or journeys, if one should have occasion to send by them?

11. Do you think of anything at present in which the Junto may be serviceable to mankind, to their country, to their friends, or to themselves?

12. Hath any deserving stranger arrived in town since last meeting that you have heard of? And what have you heard or observed of his character or merits? And whether, think you, it lies in the power of the Junto to oblige him, or encourage him as he deserves?

13. Do you know of any young beginner lately set up whom it lies in the power of the Junto any way to encourage?

14. Have you lately observed any defect in the laws of your country of which it would be proper to move the legislature for an amendment, or do you know of any beneficial law that is wanting?

15. Have you lately observed any encroachment on the just liberties of the people?

16. Hath anybody attacked your reputation lately; and what can the Junto do toward securing it?

17. Is there any man whose friendship you want and which the Junto or any of them can procure for you?

18. Have you lately heard any member's character attacked, and how have you defended it?

19. Hath any man injured you from whom it is in the power of the Junto to procure redress?

20. In what manner can the Junto or any of them assist you in any of your honorable designs?

21. Have you any weighty affair on hand in which you think the advice of the Junto may be of service?

22. What benefits have you lately received from any man not present?

23. Is there any difficulty in matters of opinion, of justice and injustice, which you would gladly have discussed at this time?

24. Do you see anything amiss in the present customs or proceedings of the Junto which might be amended?

This practical means for a liberal education was worked out by Franklin when he was but 21 years of age, and undoubtedly the advantages which he and his associates obtained from their discussions largely contributed to his success in life, and tended to shape all his ideas in education. If anyone would understand Franklin's idea of a school, let him examine the history of the Junto.

The times were productive of a different set of inquiries or questions for debate than would interest a modern debating society. We must not forget that the eighteenth century in America was the period of the determination of the theory of republican government, and the Junto discussed such political questions as tended to the definition of government. The political thinkers of the eighteenth century gave us the definition of our theory of the nature of government; the nineteenth century was spent in working out the theory of the administration of government. Some of the subjects discussed by the Junto were:

Junto questions.

Can any one particular form of government suit all mankind?

How may the possession of the Lakes be improved to our advantage?

Some of the moral questions were:

Which is less criminal, a bad action joined with a good intention, or a good action done with a bad intention?

Should it be the aim of philosophy to eradicate the passions?

Can a man arrive at perfection in this life?

Which is best, to make a friend of a wise or good man that is poor, or of a rich man that is neither wise nor good?

Which of the two is the greatest loss to the country if they both die?

Of questions touching on natural philosophy?

Whence comes the dew that stands on the outside of a tankard that has cold water in it in the summer time?

Why does the flame of a candle tend upward in a spire?

And of questions of a practical turn, one suggestive of Franklin himself:

Would not an office of insurance for servants be of service?

Which is of interest when we think of the numerous companies which now

insure employers against loss by employees, and in other forms of the insurance of domestic service.

The Junto was limited to a membership of 12, and Franklin insisted on kindness of speech, good manners, and cheerfulness of debate, which were secured by common agreement, by the singing of songs, and by diversions of various kinds. The influence of this society on American life is felt to this day. America is probably the first country in the world in which debating societies have prospered among all classes of men, and they have tended to educate the American people in all sorts of subjects which have contributed, as Dean Stanley would have said, to the "education of after life." A volume might be written on the influence of debating societies on the American character.

Franklin's plan for an English school.

I do not understand that Franklin would make a school a mere debating society, but an examination of his plan for six classes in an English school shows how the methods and ends of the Junto were ever present in his mind. The third class in his school was "to be taught speaking properly and gracefully, which is near akin to good reading, and naturally follows it in the studies of youth."

The scholars were to—

begin with learning the elements of rhetoric from some short system, so as to be able to give an account of the most useful tropes and figures. Let all their bad habits of speaking, all offenses against good grammar, all corrupt or foreign accents, and all improper phrases be pointed out to them. Short speeches from the Roman or other history or from the parliamentary debates might be got by heart and delivered with the proper action, etc. Speeches and scenes in our best tragedies and comedies (avoiding everything that could injure the morals of youth) might likewise be got by rote, and the boys exercised in delivering or acting them, great care being taken to form their manner after the truest models.

For their further improvement, and a little to vary their studies, let them now begin to read history, after having got by heart a short table of the principal epochs, as in chronology. They may begin with Rollin's Ancient and Roman histories and proceed at proper hours, as they go through the subsequent classes, with the best histories of our nation and colonies. Let emulation be excited among the boys by giving, weekly, little prizes or other small encouragements to those who are able to give the best account of what they have read, as to time, places, names, and persons, etc. This will make them read with attention and imprint the history well in their memories. In remarking on the history the master will have fine opportunities of instilling instruction of various kinds and improving the morals as well as the understandings of youth.

All this is in the spirit of the Junto, the book, the moral instruction, the debate; but there is more of the Junto also in—

The natural and mechanic history, contained in the Spectacle de la Nature, might also be begun in this class, and the subject should be continued through the subsequent classes by other books of the same kind; for, next to the knowledge of duty, this kind of knowledge is certainly the most useful as well as the most entertaining. The merchant may thereby be enabled better to understand many commodities in trade; the handicraftsman to improve his business by new instruments, mixtures, and materials; and frequently hints are given for new manufactures, or new methods of improving land, that may be set on foot greatly to the advantage of a country.

It is not strange that he should pronounce studies in natural history "the most useful as well as the most entertaining." He saw in them the possibilities of almost infinite improvement in manufactures and agriculture. His view of the industrial value of studies in natural history is remarkable, for at the time in which he wrote there were no manufactures in America. His broad generalization of the value of mechanics and natural history anticipates our present manufacturing age.

Scientific schools anticipated.

Throughout his life he was a scientific man, but he seems to have made all his experiments in science for utilitarian purposes; never pursuing them merely as pure science. The whole cast of his mind was utilitarian, and he advocated the study of "natural and mechanic history" in school because such studies would give hints "greatly to the advan-

tage of the country." The wisdom of his plan for including natural history, in its broadest meaning, in the course of study is significantly recognized in the later foundation, endowment, increase, and practical value of numerous technical schools. He anticipated the chief educational departure of modern times.

In the Junto were discussed many of the economic questions of the day, and one debate so interested him that in 1730 he elaborated the subject in a pamphlet entitled, The Nature and Necessity of a Paper Currency, a pamphlet of great importance practically at the time and in the history of political economy.

The organization of the Junto made known more clearly one of the wants of the time—a library. The members had a few books, their own personal property, but there were not enough books among them to meet their wants as a society. The meetings were first held in a tavern, one of the alehouses common in Philadelphia at the time, where the members assembled informally and brought such books as illustrated the subjects for debate. This seems to have suggested to Franklin the organization of a library for the use of the Junto. His suggestion was approved and a small room in a private house was hired for the use of the club and for the storage of its books. Some of the members complained that their books were misused and therefore took them home and deprived the Junto of them.

He founds the Philadelphia Library.

Books in 1731 were not like books at the present time, cheap, abundant, and of convenient size. The heavy folios of that time—and some of the original books of the Junto may now be seen in the Philadelphia Library—were not adapted to ease of reading while traveling. Franklin conceived of founding a permanent library, and with his usual sagacity he made it of common interest. A subscription was undertaken by which each subscriber should contribute 2 pounds sterling for the first purchase of books, and 10 shillings a year for the increase of the library. He had some difficulty in securing a sufficient list of members. Hiding himself under the signature "A number of friends," and following the ruling principle of "humble diffidence" of which he was so fond, he was at last able to see the affair going on smoothly, and in five months 50 names were obtained. A list of books was made out and an order to the value of 40 pounds was sent to London.

The books arrived in Philadelphia in October, 1732, and were placed in the room set apart for the use of the Junto; a librarian was appointed and the books were given out once a week. Franklin served as librarian for a time. The undertaking was a success, and donations were made to it of books, money, and curiosities. It grew rapidly, the company obtained a charter, and increased its membership to a hundred. As Franklin says: "This was the mother of all North American subscription libraries, now so numerous. It is become a great thing in itself, and continually goes on increasing. These libraries have improved the general conversation of the Americans, made the common tradesmen and farmers as intelligent as most gentlemen from other countries, and perhaps have contributed in some degree to the stand so generally made throughout the colonies in defense of their privileges."

The use of the right book.

When he describes the library as "a great thing in itself," he is emphasizing the cardinal doctrine of his educational system—the use of the right book. His scheme of culture embodies methodical instruction in a few selected books, which give the best thoughts of the best minds, conveyed to youth in the best manner; that is, in a natural manner. It is impossible accurately to measure the influence in America of this idea. If we measure it by the influence of libraries in our country, we might safely affirm that Americans are more indebted to Franklin for their education than to any other man. The large possibilities of his principles of self-culture are to be valued by their adaptability to the ever-growing wants of the people. It should

not be forgotten that the principle of the circulating library and the first principle of his scheme of education grew up in his mind from his own experience in self-education: in the reading of books when a child, in learning to write English correctly, in the organization of the Junto, in its debates on morals, politics, and natural philosophy, and in the necessary equipment for its debates—a library.

The Art of Virtue.

His practical mind seems to have viewed morality as it viewed politics and natural philosophy—that by thinking, by experiment, by observation, and by practice, a man might arrive at moral perfection. It would be a gross neglect of Franklin's philosophy of education to omit an account of his Art of Virtue. We must not forget that he was born in New England; that his father and mother were members of the Old South Church, and that he himself was baptized there; that his earliest impressions were religious, and that his New England home was the home of an earnest and somewhat polemic Calvinism of rigid simplicity. The insistence of his parents upon a wholesome industry and practical morality, and their stern recognition of the "chief end of man," made an impression upon Franklin's character which was never effaced. His own account is clear on this point:

I had been religiously educated as a Presbyterian; but though some of the dogmas of that persuasion, such as the eternal decrees of God, election, reprobation, etc., appeared to me unintelligible, and I early absented myself from the public assemblies of the sect, Sunday being my studying day. I never was without some religious principles: I never doubted, for instance, the existence of a Deity; that He made the world and governed it by His providence; that the most acceptable service of God was the doing of good to man; that our souls are immortal, and that all crimes will be punished, and virtue rewarded, either here or hereafter.[a]

These I esteemed the essentials of every religion; and being to be found in all the religions we had in our country, I respected them all, though with different degrees of respect, as I found them more or less mixed with other articles, which without any tendency to inspire, promote, or confirm morality, served principally to divide us and make us unfriendly to one another.

Moral perfection.

He therefore seldom attended public worship, though he had "an opinion of its propriety and of its utility when rightfully conducted," and he regularly paid his annual subscription for the support of the only Presbyterian meeting in Philadelphia. Viewing religion as "proper and useful" he conceived of it as he conceived of politics and natural philosophy, as a subject for investigation, improvement, and adaptation to the wants of man. He could not think of religion as being impossible of improvement. He identified religion and morality:

About this time I conceived the bold and arduous project of arriving at moral perfection; I wished to live without committing any fault at any time, and to conquer all that either natural inclination, custom, or company might lead me into. As I knew, or thought I knew, what was right and wrong, I do not see why I might not always do the one and avoid the other. But I soon found that I had undertaken a task of more difficulty than I had imagined. While my attention was taken up, and care employed in guarding against one fault, I was often surprised by another; habit took the advantage of inattention; inclination was sometimes too strong for reason. I concluded at length that the mere speculative conviction, that it was our interest to be completely virtuous, was not sufficient to prevent our slipping; and that the contrary habits must be broken and good ones acquired and established before we can have any dependence on a steady uniform rectitude of conduct.

The thirteen virtues defined.

In other words, he proposed to train himself in morality as he had trained himself in English composition and arithmetic. He therefore contrived a method of self-education in morals, drew up a catalogue of the virtues, and for the sake of clearness used "rather

[a] See the clause on a belief in a future state of rewards and punishments in the constitution of Pennsylvania of 1776 and of 1790, which Franklin was concerned in making. It is retained in the constitution of 1873, Article I, section 4.

more names, with fewer ideas annexed to each, than a few names with more ideas." These virtues were thirteen in number: Temperance, silence, order, resolution, frugality, industry, sincerity, justice, moderation, cleanliness, tranquillity, chastity, humility. The moral world to him was a region of experiment and he was the moral world. He proceeded to experiment with himself as he would experiment with electricity. Perhaps the originality and practical tendency of his mind was never better displayed than in his scheme for perfection in the Art of Virtue.

I made a little book in which I allotted a page for each of the virtues. I ruled each page with red ink so as to have seven columns, one for each day of the week, marking each column with a letter for the day. I crossed these columns with thirteen red lines, marking the beginning of each line with the first letter of one of the virtues, on which line and its proper column I might mark by a little black spot every fault I found upon examination to have been committed respecting virtue upon that day.

Form of the pages.

Temperance.							
Eat not to dullness; drink not to elevation.							
	S.	M.	T.	W.	T.	F.	S.
T.							
S.	•	•		•		•	
O.	• •	•	•		•	•	•
R.			•				
F.	•				•	•	
I.		•					
S.							
J.							
M.							
C.							
T.							
C.							
H.							

How to grow good.

This little book is dated July 1, 1733, when Franklin was a little past 27 years of age, and from the specimens given we can read Franklin's progress in the "art of virtue" for one week. His scheme provided for a complete course in thirteen weeks and for four courses in a year, and taking a lesson from the gardener, who does not attempt "to eradicate all the bad herbs at once, which would exceed his reach and strength, but works on one of the beds at a time, and having accomplished the first, proceeds to a second," Franklin had hope that "by clearing successively my lines of their spots, till in the end, by a number of courses, I should be happy in viewing a clean book, after a thirteen weeks' daily examination."

This self-culture in virtue for self-improvement is on the same principle as Mather's societies and the Junto. Being a practical man, Franklin strengthened his little book with maxims and quotations—one from Addison's Cato, which he had doubtless learned years before in the Spectator, another from Cicero, and a third from the Proverbs of Solomon:

The Art of Virtue applied.

Length of days is in her right hand, and in her left hand riches and honor. Her ways are ways of pleasantness, and all her paths are peace.

But not satisfied with mere quotation, he prefixed to his tables of examination for daily use a little prayer of his own composition, which in itself is a lesson in self-improvement in the Art of Virtue:

O powerful Goodness, bountiful Father, merciful Guide, increase in me that

wisdom which discovers my truest interest. Strengthen my resolutions to perform what that wisdom dictates. Accept my kind offices to thy other children as the only return in my power for thy continual favors to me.

His Art of Virtue was the art of promoting the general welfare by self-improvement and self-training in morals. He was a busy man, and found it troublesome to keep an ordinary book which must be renewed from time to time, and which, "by scraping out the marks on the paper of old faults to make room for new ones in a new course, became full of holes; I transferred my tables and precepts to the ivory leaves of a memorandum book, on which the lines were drawn with red ink, that made a durable stain, and on those lines I marked my faults with a black lead pencil, which marks I could easily wipe out with a wet sponge. After a while I went through one course only in a year, and afterwards only one in several years, till at length I omitted them entirely, being employed in voyages and business abroad, with a multiplicity of affairs that interfered; but I always carried my little book with me."

Whenever we read in Franklin's writings any reference to virtue, and he is constantly referring to the virtues, we must have in mind his Art of Virtue and his scheme for self-improvement in morality, for I suppose he thought it illogical for any individual to require a child to form habits of self-education in politics and natural history and not in morality. His scheme of culture was, after all, the practical application of Socrates's famous maxim, "Know thyself." Perhaps the time may come when Franklin's method of self-education in morality shall be the prevailing one in society, but it is hindered at present by the more popular vicarious method of moral improvement. If every man would make self-education in morals a matter of business we might be able to trace an influence of Franklin's Art of Virtue in our country as great as his influence in founding public libraries. Again and again through life he mentioned his intention of writing and publishing "a great and extensive project that required the whole man to execute," and this was to be a treatise on the Art of Virtue.

His observations on his readings.

It was the consideration of this "great and extensive project," an adequate treatment of which he could not find in the books of the world, that he made some observations after one of his readings in the library, May 19, 1731:

That the great affairs of the world, the wars, revolutions, etc., are carried on and effected by parties.

That the view of these parties is their present general interest, or what they take to be such.

That the different views of these different parties occasion all confusion.

That while a party is carrying on a general design, each man has his particular private interest in view.

That as soon as a party has gained its general point, each member becomes intent upon his particular interest, which, thwarting others, breaks that party into divisions and occasions much confusion.

That few in public affairs act from a mere view of the good of their country, whatever they may pretend; and tho' their actings bring real good to their country, yet men primarily considered that their own and their country's interest was united and did not act from a principle of benevolence.

That fewer still, in public affairs, act with a view to the good of mankind.

There seems to me at present to be great occasion for raising a United Party of Virtue, by forming the virtuous and good men of all nations into a regular body, to be governed by suitable good and wise rules, which good and wise men may probably be more unanimous in their obedience to than common people are to common laws.

I at present think that whoever attempts this aright, and is well qualified, can not fail of pleasing God, and of meeting with success.

If I understand these observations correctly, they signify that Franklin conceived of a moral order in the world. From that conception he made scientific

deductions, the most important of which was that the moral order will prevail if men understand the principles of the moral world. Therefore he would encourage all men to make self-improvement the basis of moral investigation. From the mass of these moral experiments the ruling principles of the moral world might be deduced. In this mental process we see the man of science.

Experiments in shipbuilding.

When, in 1757, he had engaged passage to England in a New York packet ship, had embarked stores for himself and his son, and was waiting orders of the tedious Lord Loudoun, who delayed the sailing of the fleet more than three months, he had occasion to practice his "art of virtue," and illustrate all his capacity for patience and happiness. It was in describing this voyage in his Autobiography that he wrote:

> It has been remarked, as an imperfection in the art of shipbuilding, that it can never be known till she is tried whether a new ship will or will not be a good sailer; for that the model of a good sailing ship has been exactly followed in a new one, which has proved, on the contrary, remarkably dull. I apprehend that this may partly be occasioned by the different opinions of seamen respecting the modes of lading, rigging, and sailing of a ship. Each has his system, and the same vessel, laden by the judgment and orders of one captain, shall sail better or worse than when by the orders of another. Besides, it scarce ever happens that a ship is formed, fitted for the sea, and sailed by the same person. * * * Yet I think a set of experiments might be instituted, first, to determine the most proper form of the hull for swift sailing; next, the best dimensions and properest place for the masts, then the form and quantity of sails, and their position as the wind may be, and, lastly, the disposition of the lading. This is an age of experiments, and I think a set accurately made and combined would be of great use. I am persuaded, therefore, that ere long some ingenious philosopher will undertake it, to whom I wish success.

His observations on the sailing of ships illustrate his ideas in education: by frequent experiment, rules for the conduct of life should be deduced, and the dominant idea of all experimentation should be utility.

The idea of experimentation and the deduction of principles from it is the chief idea in his philosophy of education. He would have "natural and mechanic history" taught, because deductions might be made which would improve agriculture and mechanics. He would have composition taught in his ideal school because "writing one's own language well is the next necessary accomplishment after good speaking. It is the writing master's business to take care that the boys make fair characters, and place them straight and even in the line; but to form their style and even to take care that the stops and capitals are properly disposed is the part of the English master. The boys should be put on writing letters to each other on any common occurrences and on various subjects, imaginary business, etc., containing little stories, accounts of their late reading, what parts of authors please them, and why; letters of congratulation, of compliment, of request, of thanks, of recommendation, of admonition, of consolation, of expostulation, excuse, etc. In these they should be taught to express themselves clearly, concisely, and naturally, without affected words or highflown phrases. All their letters to pass through the master's hand, who is to point out the faults, advise the corrections, and commend what he finds right. Some of the best letters published in our own language, as Sir William Temple's, those of Pope and his friends, and some others, might be set before the youth as models, their beauties pointed out and explained by the master, the letters themselves transcribed by the scholar.

How to teach composition.

Morality to be taught.

Dr. Johnson's Ethica Elementa, or First Principles of Morality, may now be read by the scholars, and explained by the master to lay a solid foundation of virtue and piety in their minds. And as this class continues the reading of history let them now, at proper hours, receive some further instruction in chronology and in that part of geography (from the mathematical master) which is necessary to understand the

maps and globes. They should also be acquainted with the modern names of the places they find mentioned in ancient writers. The exercise of good reading and proper speaking still continued at suitable times.

Essays and logic.

His fifth class, for further improvement in composition, were to continue writing letters, and, in addition, to begin writing—

Little essays in prose, and sometimes in verse, not to make them poets, but for this reason: That nothing acquaints a lad so speedily with variety of exercises as the necessity of finding such words and phrases as will suit the measure, sound, and rhyme of verse, and at the same time well express the sentiment. These essays should all pass under the master's eye, who will point out their faults and put the writer on correcting them. Where the judgment is not ripe enough for forming new essays, let the sentiment of a Spectator be given and required to be clothed in the scholar's own words; or the circumstances of some good story, the scholar to find expression. Let them sometimes be put on abridging a paragraph of a diffuse author; sometimes on dilating or amplifying what is wrote more closely. And now let Dr. Johnson's Noetica, or First Principle of Human Knowledge, containing a logic, or art of reasoning, etc., be read by the youth, and the difficulties that may occur to them be explained by the master. The reading of history, and the exercise of good reading and just speaking still continued.

Origin of Franklin's ideas.

This formula is an epitome of Franklin's own experience. He had written little essays in prose and sometimes in verse as a boy, and had learned the art from his uncle, who was a prodigious maker of verses.

Franklin, while apprenticed to this brother in Boston, had written doggerel verses and street ballads which sold so well that he was persuaded of their value, but his passing inclination to become a poet was smothered by his father's sage remark, one that was characteristic of the whole Franklin family, that "poets were usually very poor people and died beggars."[a]

His plan for clothing the sentiments of the Spectator in the scholar's own words was based entirely on his own boyish acquaintance with that classic.

In his sixteenth year he had experienced the exquisite pleasure, and he often spoke of it tenderly more than half a century later, of seeing his first piece in print in the Boston Courant, and though it was not signed Benjamin Franklin it was his own, that is, as much his own as a paraphrase of a popular author could be. Under the signature of Silence Dogood he wrote a number of articles in which he criticised colleges and graduates of colleges, discussed childhood, marriage, and widowhood, and in affected words and highflown phrases delivered himself of his thought. These articles in the Courant were doubtless in Franklin's mind when he prescribed the kind of composition useful for the classes in his model school. He had educated himself in that way.

His scientific mind recognized the value of correct deductions and therefore logic took a primary place in his system of culture. His first class should be taught the English grammar rules; his second should construe the parts of speech and sentences and recur to the rules of grammar; his third should learn the elements of rhetoric; and his class should study the art of reasoning in Dr. Johnson's First Principles of Human Knowledge, because without practice in that art correct deductions in life could not be made. The introduction of logic into the list of studies was due not only to the tendency of his mind, but also to the results of his own experience.

At 15, soon after awakening to his own ignorance of figures, he read Locke's Human Understanding and the Art of Thinking, by Messrs. du Port Royal, books which evidently greatly aided him in the orderly examination of phenomena and in making correct deductions from his experiments. He says in drawing up his Art of Virtue that he found himself "incorrigible with respect to order," and

[a] See a specimen of Franklin's verses, page 132.

deficient in what might now be called system. One of the serious criticisms made of him while minister to France many years later was the confusion of affairs in his office. Self-study had revealed to him this defect, and doubtless one reason for the introduction of logic and the rules of grammar and rhetoric into the studies of childhood was to remedy in others the defect from which he had suffered himself.

Self-education in morality.

It should be said of him that his scheme for self-culture in morality was the means of his own regeneration, and that after his Art of Virtue was clearly before his mind he was probably as free from faults as any man of his times. The utility of his ideas in morals was thus proved in his own life.

It was at this time that he prepared for his own use his Articles of Belief and Acts of Religion, a creed, a prayer book, and a litany, which, he tells us, he continued to use for twenty years. His practice of the Art of Virtue confirmed his opinion that, as the object of religion was to promote virtue, religion was useful to mankind, and that the sects of his times contributed on the whole to the happiness and virtue of their members. It should be remembered that Franklin lived during one of the great religious revivals of history under the preaching of Whitefield. It would be interesting to trace the influence of the revival of religion under Wesley and Whitefield upon the education of Americans.

The spread of Methodism in America and the founding of seminaries and colleges by that denomination present a pleasing subject for historical investigation.

Franklin and Whitefield.

Whitefield was better known to Franklin than to any other American. The great preacher came to Philadelphia in 1739 and threw the whole city into a ferment. He was as unlike Franklin as Franklin was unlike Dr. Johnson. He found in Franklin a true friend, a genial host, and a publisher. Philadelphia was tolerant, and Whitefield had no difficulty in gathering an audience. Tradition tells us of the multitudes who thronged to hear the great preacher. Franklin was greatly moved by his eloquence, but was not persuaded to adopt his doctrines. It having been found inconvenient for the crowds who came to hear Whitefield to assemble in the open air, it was proposed to erect a building 100 feet long and 70 broad, which should be for the accommodation of inhabitants of the town who might care to hear any preacher on any subject.

Whitefield had changed the manners of Philadelphia. Franklin records how under the influence of his preaching "from being thoughtless or indifferent about religion it seems as if all the world were growing religious, so that one could not walk through the town in the evening without hearing Psalms sung in different families in every street."

The eloquence of Whitefield and the multitudinous demand of the people for accommodation to hear him were the occasion for the building of a suitable meeting house, which also became a few years later the first building used by the Academy of Philadelphia, later the College of Philadelphia, now the University of Pennsylvania.

He experiments with Whitefield's voice.

Franklin's love of natural philosophy prompted him to use Whitefield's voice as the means of an experiment in acoustics.

He preached one evening from the top of the court-house steps, which are in the middle of Market street and on the west side of Second street which crosses it at right angles. Both streets were filled with his hearers to a considerable distance. Being among the hindmost in Market street, I had the curiosity to learn how far he could be heard by retiring backward down the street toward the river, and I found his voice distinct till I came near Front street when some noise in the street obscured it. Imagining then a semicircle, of which my distance would be the radius and that it were filled with auditors, to each of whom I allowed 2 feet, I computed that he might well be heard by more than 30,000. This reconciled me to the newspaper accounts of his having preached to

25,000 people in the fields and to the ancient histories of generals haranguing whole armies, of which I had sometimes doubted. [a]

His daily school programme.

This comment on Whitefield admits us into a closer knowledge of Franklin's self-education. In his provision for the lessons of the second class in the ideal school, he advised the use of lessons made up of parts of a sermon, or of a general's speech to his soldiers, and the wonderful voice of Whitefield proved to him that the great speeches made by generals to their soldiers, such as he had read in Plutarch's Lives, might have been heard by the army. I suppose that Whitefield was all the more interesting to Franklin because he illustrated some of the properties of sound and demonstrated that the speeches of Cyrus might have been heard by his troops.

For the sixth class Franklin prescribed a continuation of the preceding studies in "history, rhetoric, logic, moral, and natural philosophy, the best English authors * * * as Tillotson, Milton, Locke, Addison, Pope, Swift, the higher papers in the Spectator and Guardian, the best translations of Homer, Virgil, and Horace, of Telemachus, the Travels of Cyrus, etc."

The hours of the day were to be divided and disposed in such a manner that some classes might be "with the writing master, improving their hands, others with the mathematical master, learning arithmetic, accounts, geography, use of the globes, drawing, mechanics, etc., while the rest are in the English school, under the English master's care." Here is the substance of the working programme familiar in its development to all teachers at the present time.

It will be noticed that Franklin mentions drawing as a study for the sixth class. In this he anticipated one of the most important elements of modern education. By restful alternation in the order of the studies, he anticipated the programme of our technical training schools which divide the school day between literary study (language, mathematics, history, science, etc.) and the industrial studies (free hand, machine, and architectural drawing, wood working, smithing, etc.), indeed Franklin's scheme for the education of youth anticipates the ideas of the modern supporters of manual training.

Prizes for the successful.

Throughout his plan he develops a system of incentives to excellence. Speaking of the first class, he says improvement in spelling "perhaps * * * is best done by pairing the scholars; two of those nearest equal in their spelling to be put together. Let these strive for victory, each propounding ten words every day to the other to be spelled. He that spells truly most of the other's words is the victor for that day; he that is victor most days of the month to obtain a prize, a pretty, neat book of some kind, useful in their future studies."

The system of prizes was a favorite one with him; [b] he thought that it "fixes the attention of the children," and he continually refers to it throughout his life. In dealing with men he acted upon the principle of incentive to action. As the highest encouragement to the classes he suggested that—

Once a year let there be public exercises in the hall, the trustees and citizens present. Then let fine gilt books be given as prizes to such boys as distinguish themselves and excel the others in any branch of learning, making three degrees of comparison, giving the best prize to him that performs best, a less valuable one to him that comes up next to the best, and another to the third, commendations, encouragement, and advice to the rest, keeping up their hopes that by industry they may excel another time. The names of those that obtain the prize to be yearly printed in a list.

"Fine gilt books."

The intimate knowledge of human nature which is illustrated in this little scheme shows how much he had learned in the

[a] It is said that some words uttered by Whitefield were distinctly heard by people across the Delaware.

[b] He incorporated in his will a provision for prizes in the public schools of Boston.

printing business—that "fine gilt books" are often more popular simply because of their binding and style rather than for their contents. The material success of subscription publications attests the accuracy of this discrimination. He would appeal to the eye as well as to the "understandings of youth." His division of the prizes into three classes and the publication of the names of the winners suggests that in educational matters he would apply the fundamental principles at the base of Adam Smith's Economics, that every man will most willingly pursue his own substantial interest.

He had learned by experience the power of incentives in study. Soon after the projection of his Art of Virtue he became dissatisfied with the mere reading of books and began the study of languages. He had long been fond of chess, and he combined his love of language and of chess by fixing a condition of the game that "the victor in every game should have a right to impose a task, either in parts of the grammar, to be got by heart, or in translations, etc., which tasks the vanquished shall perform upon honor before our next meeting. As we played pretty equally, we thus beat one another into that language."

He took up the study of languages as he had taken up arithmetic and English composition and taught himself. In attempting to learn the modern languages his attention was called again to the Latin tongue, which he had studied in an elementary way in his childhood for one year.

> But when I had attained an acquaintance with the French, Italian, and Spanish, I was surprised to find on looking over a Latin Testament that I understood so much more of that language than I had imagined, which encouraged me to apply myself again to the study of it, and I met with more success, as those preceding languages had greatly smoothed my way. From these circumstances, I have thought that there is some inconsistency in our common mode of teaching languages. We are told that it is proper to begin first with the Latin, and having acquired that, it will be more easy to attain those modern languages which are derived from it; and yet we do not begin with the Greek, in order more easily to acquire the Latin. It is true that if you can clamber and get to the top of a staircase without using the steps, you will more easily gain them in descending; but certainly, if you begin with the lowest, you will with more ease ascend to the top; and I would therefore offer it to the consideration of those who superintend the education of our youth, whether, since many of those who begin with the Latin quit the same after spending some years without having made any great proficiency, and what they have learned becomes almost useless, so that their time has been lost, it would not have been better to have begun with the French, proceeding to the Italian, etc.; for though, after spending the same time, they should quit the study of languages and never arrive at the Latin, they would, however, have acquired another tongue or two, that, being in modern use, might be serviceable to them in common life.

This observation is the substance of all discussion made since Franklin's day of the subject of teaching modern languages. He arrived at his opinions by his own experience, and incorporated them in his Plan for the Education of Youth in Pennsylvania, repeatedly referred to them, and defended them in one of the last papers of his life.

In his Proposals Relative to the Education of Youth in Pennsylvania, written in 1749, he had something to say of the study of language which did not exactly conform to his earlier ideas concerning the study of modern languages. In 1733 he had arrived at his conclusions of the superior advantages of the study of modern languages, even to the exclusion of Greek and Latin, by his own self-education in French, Italian, and Spanish. His Proposals were written sixteen years later, and the departure from his own opinion on the study of languages set forth in the Proposals is to be attributed to the necessary compromise which he found that he had to make in order to get the Philadelphia Academy founded.

In commenting on his plan for an English school, he said:

Thus instructed, youth will come out of this school fitted for learning any business, calling, or profession, except such wherein languages are required; and, though unacquainted with any ancient or foreign tongue, they will be masters of their own, which is of more immediate and general use, and withal will have attained many other valuable accomplishments; the time usually spent in acquiring those languages, often without success, being here employed in laying such a foundation of knowledge and ability as, properly improved, may qualify them to pass through and execute the several offices of civil life with advantage and reputation to themselves and country.

A universal scheme of education.

His plan for an English school contains ideas of a universal scheme of education applicable to such a country as ours. It should not be inferred that he was unfriendly to higher education. He knew very well the practical importance of public enlightenment, and, in providing for the general instruction of all children of the land, he would introduce those subjects and methods which would conduce to the largest public utility. We must not forget that in Franklin's time free public schools were not thought of,[a] that no minister of state or legislator had formulated a scheme of general education at public expense, but that education was still an individual affair, and the means for pursuing it existed only in private schools.

At 33 Franklin was continuing his self-education by making researches in natural history. In his Proposals for the Education of Youth he advised that "now and then excursions be made to the neighboring plantations of the best farmers, their methods observed and reasoned upon for the information of youth; that natural history will also afford opportunities of introducing many observations, etc."

Practice, not theory.

He was himself a close observer, and like all great men who have advanced science, he made his observations with the assistance of simple and inexpensive instruments. In the possession of the University of Pennsylvania and of the Franklin Institute there are some portions of his electrical apparatus, the simplicity of which surprises the student in the modern electrical laboratory and leads him almost to underrate the services of Franklin to science. Franklin's self-education taught him to make use of the phenomena in nature, as he made use of the labors of other men, to swell the mass of his own knowledge.

The story of the ants, told by Professor Kalm, illustrates this practical method of scientific investigation: Franklin put an earthen pot, filled with molasses, into a closet, into which the ants soon found their way and began devouring the sweet. Franklin, observing this, removed the pot and suspended it by a string to a nail in the ceiling of the room, leaving a single ant in the pot. When its hunger was satisfied it tried to go home and, after many efforts, found its way up the string, across the ceiling to the wall, and thus to the ground. By half an hour Franklin saw a swarm of ants issuing from the ground, climbing the wall, crossing the ceiling, creeping down the string, and eating the molasses, one line coming and one line going until the molasses was all consumed.

This little story, which some of us remember in our school books, illustrates Franklin's method of investigating the habits of insects, a method as simple as his experiment with the kite. In his scheme for education he made no provision for elaborate physical apparatus. There is no reference to laboratories and it seems as if his ideas lacked the essentials of education in modern times. This hasty conclusion is corrected when we reflect on the education which Franklin

[a] An important and, in its influence, a far-reaching exception is to be made for New England. See account of John Adams's plan for public education and the constitution of Massachusetts, 1780, pages 163-165.

himself received and was making all through life. He knew nothing of elaborate physical apparatus; nature was his laboratory, observation and experience his teachers, and he relied upon these as the best means for the education of others. Ambition stimulated him to gain knowledge and he reasoned that it would stimulate others.

It has sometimes been asked whether the elaborate apparatus in modern education does not weight heavily in the hands of youth, and whether many of them are unable to see the principles on account of the apparatus.

His ends utilitarian.

The utilitarian ends which Franklin proposed are generally traceable to his own experience. His loss from the bad bookkeeping of the deputy postmaster-general of the colonies led him to "mention it as a lesson to those young men who may be employed in managing affairs for others, that they should always render accounts and make remittances with great clearness and punctuality; the character of observing such a conduct is the most powerful of recommendations to new employments and increase of business."

A word frequently used by him is "business." It should be remembered that he viewed education from the vantage ground of the man of affairs who had never received the conventional training of the schools. He saw in industry and business the chief occupation of the mass of the people. Schools, he thought, should contribute to the advantage of this industry and this business.[a] He would make the transition from school life to the life of business easy and natural, and his chief defense for his proposed school was that there such a foundation of knowledge and ability might be laid as, properly improved, would qualify boys to "pass through and execute the several offices of civil life with advantage and reputation to themselves and country."

It is not to be understood that by "the offices of civil life" Franklin meant merely political offices. He uses the term "civil life" comprehensively, meaning the occupations of the citizen. Had he meant political preferment he would have used the phrase "public affairs."

His proposal for an academy.

He conceived of the school as a foundation for improvement in the pupil by the pupil himself. His own life was a continuous self-education. Practical wisdom was his aim. We find nowhere in his writings that modern phrase, "the completion of education." He makes no provision for any such limitation or standstill.

He was a native of Boston and never forgot his native town. Once in ten years he revisited that beloved spot and refreshed himself with the renewal of old acquaintances and associations. He frequently refers to his New England training, and it stood him in good stead through life. There are not wanting reminiscent touches, however.

He proposes a learned society.

I had, on the whole, abundant reason to be satisfied with my being established in Pennsylvania. There were, however, two things that I regretted, there being no provision for defense, nor for the complete education of youth; no militia, nor any college. I therefore, in 1743, drew up a proposal for establishing an academy,[b] and at that time, thinking the Rev. Mr. Peters, who was out of employ, a fit person to superintend such an institution, I communicated the project to him; but he, having more profitable views in the service of the proprietaries which succeeded, declined the undertaking, and, not knowing another at that time suitable for such a trust, I let the scheme lie awhile dormant. I succeeded better the next year, 1744, in proposing and establishing a philosophical society.

Meanwhile the prospects of war between England and France delayed academic

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[a] The numerous economic and business schools of our day are founded on this idea.

[b] See the Proposals, pp. 182-185.

matters. His activity in the public defense having pleased the governor and council, he remarks with evident pride:

They took me into confidence, and I was consulted by them in every measure wherein their concurrence was thought useful to the association. Failing to obtain the cooperation of the middle colonies, and calling in the aid of religion, I proposed to them the proclaiming a fast to promote reformation, and implore the blessing of Heaven on our undertaking. They embraced the motion; but, as it was the first fast ever thought of in the province, the secretary had no precedent from which to draw the proclamation. My education in New England, where a fast is proclaimed every year, was here of some advantage. I drew it in the accustomed style; it was translated into German, printed in both languages, and divulged through the province. This gave the clergy of the different sects an opportunity of influencing their congregations to join in the association, and it would probably have been general among all but Quakers if peace had not soon intervened.

The pros and cons in education.

His confession that he proposed a fast because of the obvious advantages to be derived from it is a comment on his theory of morality. Had any other equal means of winning public favor been suggested by his New England training, he would have weighed the relative advantages and given his decision accordingly, for he tells us that he was accustomed when considering two courses of action to set down in columns the pros and cons of the question.

His motion, made years later, for prayers in Congress, was doubtless made to secure the advantages which he supposed would be attached to them in the public mind.

He again proposes an academy.

Peace being concluded, and the association business therefore at an end, I turned my thoughts again to the affair of establishing an academy. The first step I took was to associate in the design a number of active friends, of whom the Junto furnished a good part. The next was to write and publish a pamphlet entitled Proposals relating to the Education of Youth in Pennsylvania. This I distributed among the principal inhabitants gratis; and as soon as I could suppose their minds a little prepared by the perusal of it, I set on foot a subscription for opening and supporting an academy. It was to be paid in quotas yearly for five years. By so dividing it I judged the subscription might be larger, and I believe it was so, amounting to no less, if I remember right, than £5,000.

In the introduction to these proposals I stated their publication, not as an act of mine, but of some public-spirited gentlemen, avoiding as much as I could, according to my usual rule, the presenting myself to the public as the author of any scheme for their benefit.

The subscribers, to carry the project into immediate execution, chose out of their number 24 trustees, and appointed Mr. Francis, then attorney-general, and myself to draw up constitutions for the government of the academy, which being done and signed, a house was hired, masters engaged, and the schools opened, I think, in the same year, 1749.

The scholars increasing fast, the house was soon found too small, and we were looking out for a piece of ground, properly situated, with intention to build, when Providence threw into our way a large house ready built, which with a few alterations might well serve our purpose. This was the building before mentioned, erected by the hearers of Mr. Whitefield, and was obtained for us in the following manner:

The academy is nonsectarian.

It is to be noted that the contributions to this building being made by people of different sects, care was taken in the nomination of trustees, in whom the building and ground was to be vested, that a predominancy should not be given to any sect, lest in time that predominancy might be a means of appropriating the whole to the use of such sect, contrary to the original intention. It was therefore that one of each sect was appointed, viz, one Church of England man, one Presbyterian, one Baptist, one Moravian, etc.; those, in case of vacancy by death, were to fill it by election from among the contributors. The Moravian happened not to please his colleagues, and on his death they resolved to have no other of that sect. The difficulty then was how to avoid having two of some other sect by means of the new choice.

Several persons were named, and for that reason not agreed to. At length one

mentioned me, with the observation that I was merely an honest man, and of no sect at all, which prevailed with them to choose me. The enthusiasm which existed when the house was built had long since abated, and its trustees had not been able to procure fresh contributions for paying the ground rent, and discharging some other debts the building had occasioned, which embarrassed them greatly. Being now a member of both sets of trustees, that for the building and that for the academy, I had a good opportunity of negotiating with both, and brought them finally to an agreement by which the trustees for the building were to cede it to those of the academy, the latter undertaking to discharge the debt, to keep forever open in the building a large hall for occasional preachers, according to the original intention, and maintain a free school for the instruction of poor children. Writings were accordingly drawn, and on paying the debts the trustees of the academy were put into possession of the premises, and by dividing the great and lofty hall into stories, and different rooms above and below for the several schools, and purchasing some additional ground, the whole was soon made fit for our purpose, and the scholars removed into the building. * * *

The academy becomes the university.

The trustees of the academy, after a while, were incorporated by a charter from the governor; their funds were increased by contributions in Britain and grants of land from the proprietaries, to which the assembly has since made considerable addition; and thus was established the present University of Philadelphia.[a] I have been continued one of its trustees from the beginning, now near forty years, and have had the very great pleasure of seeing a number of the youth who have received their education in it distinguished by their improved abilities, serviceable in public stations, and ornaments to their country.

Shall Latin and Greek be taught?

In his plan for the education of youth in Pennsylvania he outlined his ideas of university training, but all the parts of the proposals were not wholly according to his liking. He discovered that his idea of an English school would not win the financial support of all the subscribers. Many of them thought that provision should be made for the study of the ancient languages, and to gain the support of these men Franklin, in the spirit of compromise, inserted this clause:

When youth are told that the great men, whose lives and actions they read in history, spoke two of the best languages that ever were, the most expressive, copious, beautiful; and that the finest writings, the most correct compositions, the most perfect productions of human wit and wisdom are in those languages, which have endured for ages, and will endure while there are men: that no translation can do them justice, or give the pleasure found in reading the originals; that those languages contain all science; that one of them is become almost universal, being the language of learned men in all countries, and that to understand them is a distinguished ornament, they may be thereby made desirous of learning these languages, and their industry sharpened in the acquisition of them. All intended for divinity should be taught Latin and Greek; for physic, the Latin, Greek, and French; for law, the Latin and French; merchants, the French, German, and Spanish; and though all should not be compelled to learn Latin, Greek, or the modern foreign languages, yet none that have an ardent desire to learn them should be refused, their English, arithmetic, and other studies absolutely necessary, being at the same time not neglected.

Translations vs. the original.

To strengthen his defence of English studies he wrote at this time the Sketch of an English School, which was printed as a pamphlet at his press, but did not receive much attention. At the opening of the academy Mr. Peters preached a sermon which was favorably received and printed in pamphlet form at Franklin's press. With characteristic sagacity Franklin sewed together his pamphlet, A Sketch of an English School, with Mr. Peters's sermon, and so got his notions before the public. Forty years after the foundation of the academy, and two years before his death, he wrote his Observations relating to the Intentions of the Original Founders of the Academy in Philadelphia, in which he elaborated his early ideas of education. He anticipated the revolt against the classics which has come in our day, and which has

[a] This institution became the University of Pennsylvania in 1779. (See act of assembly, Nov. 27, 1779, creating the corporation.)

relegated Latin and Greek into the region of the dead. It is not inexpedient to say that his idea of studying only such languages as will be of utility to those who pursue them is the correct principle in this department of education. In conformity with his notion we have the modern elective course, which is the practical result of his challenge of the advantage and utility of compelling all persons who pursue higher education to pursue the same subjects in the same way for different ends. It will be noticed that there is a touch of humorous satire when he writes in a spirit of compromise that "no translations can do the finest writings in Latin and Greek justice" or give the "pleasure found in reading the originals," and that these languages "contain all science." It should not be forgotten, however, that he owed his fame to the publication of his electrical investigations in the Latin tongue as well as in French, Spanish, and Italian.

When he pleaded for the study of modern languages and the relegation of Latin and Greek to a secondary place he was confronting and challenging the scholastic world. The first struggle between the old system and Franklin's ideas of the new education occurred in Philadelphia in the very institution which he had been instrumental in founding, and the story of that struggle was told by Franklin himself two years before his death.

The education of orphans.

It will be noted that in his plan of a school there was a provision for the education of poor children. The doctrines of equity regulated his ideas of charity. His Hints for Consideration Respecting the Orphan Schoolhouses in Philadelphia formulate the large experience of his life in charitable matters. He laid down the controlling principles for such an institution as follows: (1) That the institution be regularly inspected; (2) that the labor of the orphans should not be made for the profit of the establishment; (3) that an account should be opened with each orphan, crediting him with his labor and debiting him for the maintenance of his education; (4) that at his discharge, on coming of age, his accounts should be balanced and he should be urged and in honor bound to pay any indebtedness, and he should receive any credit due him; (5) that upon leaving the institution he should receive decent clothing, some money, and if deserving, a certificate of good behavior; (6) that the institution should aid him in entering upon a business or securing a position in life. Stephen Girard seems to have been influenced by these principles in founding Girard College, but it is doubtful whether Franklin would have limited the benefits of this charity to persons of the white race.

II.

THE PRACTICE OF THE ART IN A DEMOCRACY.

At 53 Franklin had become, by the application of his own maxims, a man of independent fortune, much respected by his neighbors and of good reputation throughout the colonies. There had been a long and bitter dispute in Pennsylvania respecting the rights of the proprietaries and of the assembly, chiefly turning upon the question whether the estates of the Penns should be taxed like other realty in the province. He had earnestly and efficiently advocated the rights of the assembly, and it was as its representative that he went to England in 1757.

Franklin educates the colonies.

"It was Franklin," says one of his biographers, "who chiefly educated the colonies in the knowledge of their rights. He did this in many ways—by his Junto, by his newspaper, by his conversation, by the libraries founded through him, by the taste for science which he communicated, but especially by the ardor and ability with which he waged this long warfare against arrogant stupidity embodied in the degenerate offspring of William Penn."

His experiments in electricity had already been recognized in England and France, and he was included among the literary and learned men of the time. Defects in his education were never suspected by the academic world that sought his society.[a] He was a genius in his capacity for reading, was a good listener, easy in his manners, gay and witty, and never sought to indulge the company with "flashes of silence." No sooner had he settled in London as colonial agent than his instinct to effect improvements showed itself. The smoky street lamps and filthy streets of the city were the objects of his attention.

It is not my purpose to write a biography of Franklin, nor even to catalogue his experiments, but only to outline the utilitarian character of the man and his ideas.

The conduct of the ministry toward him afforded him an opportunity to travel, and in 1757 he visited Scotland, where the University of St. Andrews conferred upon him the title of doctor of laws, by which he was ever familiarly known. In Edinburgh he met Hume, Robertson, and Lord Kames, and it is thought by one of his biographers that one of his remarks to Dr. Robertson "suggested the well-known Macaulayan image of the New Zealander sitting upon the arch of London Bridge contemplating the ruin of St. Paul's."

He educates England also.

But he was engaged in a larger service for his countrymen than making the favorable acquaintance of eminent men. He was writing and printing pamphlets on the American colonies for the enlightenment of the English public. The dark and dreary night of English opinion at that time respecting America seemed impervious to the beams of Franklin's genius, and he succeeded but feebly at first in piercing it; but the rays of his intelligence at last fell upon fertile soil, and there sprang up a liberal party in the Kingdom, which at last laid hold of the Government and compelled the acknowledgment of American independence.

The usefulness of Franklin at this time may be understood by any who choose to read his numerous pamphlets and his more numerous letters. His farsightedness is illustrated in one of his cherished opinions, expressed to Lord Kames, "that the foundations of the future grandeur and stability of the British Empire lie in America." He opposed the restoration of Canada to the French, saying: "If we keep it, all the country from the St. Lawrence to the Mississippi will in another century be filled with British people; Britain itself will become vastly more populous; by the immense increase of its commerce the Atlantic Sea will be covered with your trading ships, and your naval power, thus continually increasing, will extend your influence round the whole globe, and awe the world."

He ever believed and labored to effect that Canada and the thirteen colonies should comprise a political unit, and it was only by a blunder of his colleagues in Paris, when the final treaty of peace was made in 1783, that the United States did not include Canada.

Examined before the House of Commons.

Perhaps the most telling lesson which he imparted to the British public was his examination before the House of Commons in 1765. For the first time England received true information of the state of the colonies, and the information was conveyed to the masters of England. The examination was by no means an accidental or impromptu affair. Nearly all the questions and answers were arranged beforehand by Franklin and his friends among the Liberal members of Parliament. This lawyer-like proceeding does not affect the value of the evidence. By timely shaping the examination he concentrated, during the brief period he was before the House, all possible information that could be elicited from the man best

[a] Instance the honorary degrees he received from William and Mary College, St. Andrews, Oxford, and Cambridge.

informed in the affairs of the colonies. Franklin was at home in the subject and played the first part in the most Socratic dialogue in parliamentary history. The whole examination was after Franklin's own heart and singularly in keeping with his own self-education. Experience and observation equipped him for the task, and his triumph is the proof of the excellence of his method.[a]

He aims to educate public opinion, and succeeds.

He had a unique method of educating the British public and he had learned it in his apprentice days in Boston and during the long struggle between the assembly and the proprietaries in Pennsylvania. The method is characteristic of all his political writings. It was briefly to set the whole question in dispute in a humorous light, by which the reader might see his way to the true conclusion; that is, the conclusion which Franklin wished to draw. This method of political enlightenment is unquestionably good in journalism and pamphleteering, and has its uses in bookmaking and public speaking, but Franklin's tendency to indulge in humor, it is said, excluded him from being asked by his contemporaries to write any of the great state papers with which he was, in one way or another, concerned. It would hardly do to put a joke into the Declaration of Independence. His English pamphlets are exquisite political hits, of which two are particularly famous. His Rules for Reducing a Great Empire to a Small One, Presented to a Late Minister (Lord Hillsboro, when he entered upon his ministry), and An Edict of the King of Prussia. These show one phase of his genius at great advantage. He was the first American humorist.

He was aware that public opinion is won and controlled by the most delicate and yet by the broadest manipulation, and that if he could win for America the favorable opinion of the British public an American party would ultimately control the votes of the House of Commons. By this procedure he showed the practicality of his mind; he appealed to the power in England which makes and unmakes ministries.

His educational methods.

In appealing to this power he did not proceed blindly by addressing merely humorous and ephemeral newspaper articles to the general reader. He wrote masterly articles for the education of the public, and more, he became the companion of the first literary and scientific men of England, and won many of them to the support of his liberal ideas, not by formal discussion of the rights of the colonies, but by exemplifying in his own character and appointments the nature of the institutions which could produce such a man as he. It is not difficult for us to realize how he thus became the typical American and won respect for America by winning respect for himself. One of his services to his country was in the experimental proof that the human race does not degenerate in America.[b]

We must not forget that he appeared in the drawing rooms of London when it was a common doubt in English society whether Americans were white or black, whether they dressed in skins or wool, whether they spoke English or Indian, whether they lived in houses or wigwams, and whether Philadelphia was in Pennsylvania or Pennsylvania in Philadelphia.

Influence of Franklin on Adam Smith.

Among his friends in England were Adam Smith, who at the time Franklin met him was writing his classic work, The Nature and Cause of the Wealth of Nations, and David Hume, the well-known author of a history of England and of essays in politics and philosophy. Adam Smith, when writing his Wealth of Nations, was in the habit of bringing the chapters, as he composed them, to Franklin, to Dr. Price, and others of the literati, then patiently hearing their observations and profiting by their discussions and criticisms, sometimes rewriting whole chapters after con-

[a] See the Examination in Bigelow's edition of his works, vol. 3, p. 407.

[b] The later incident of the six tall Americans and the six short Frenchmen together at dinner is in point.

ference and even reversing some of his propositions. Hume writes to Adam Smith in 1776: "Your work is probably much improved by your last abode in London." Parton has pointed out that Franklin's papers at this period "contain sets of problems and queries, as though agitated at some meeting of philosophers for particular consideration at home." All students of political economy have long known that Smith's Wealth of Nations is the first book that illustrates its propositions by examples from America. Smith was working out a new system of economics. In seeking a field for the application of his ideas it was natural that he should refer to America, a new country, as the region where they might have a practical test.[a]

It is known that the Wealth of Nations had great influence in centering the attention of Europe upon America. It is also known that the statesmen who cooperated in the formation of the United States—Franklin, Washington, Jefferson, Madison, Hamilton, Jay, Morris, and others—were acquainted with the teachings of Adam Smith. The Wealth of Nations had a most important influence in the organization of government in America in the critical years from 1776 to 1789. The doctrines of Smith are traceable in the debates of the Constitutional Convention of 1787, and references to the influence of the Wealth of Nations are scattered through the works of the statesmen of the period. Monroe, in a letter to Jefferson, dated New York, June 16, 1785, speaks of "a Mr. Smith on the Wealth of Nations" as attempting to controvert the doctrine of the "balance of trade as one in pursuit of which Great Britain hath exposed herself to great injury." Smith's work was well known to Hamilton and Madison and was referred to by them and their political associates frequently during the last quarter of the eighteenth century. The book had direct reference to America, due to Franklin's influence, and was influential here long before it was influential in Europe. Washington's copy of the Wealth of Nations shows evidence that it had been carefully read; it contains proof corrections and notes in Washington's hand.

It is not too much to say that Franklin's influence on economic education is illustrative of his whole educational doctrine. He gave to Adam Smith apt illustrations of the utility of the ideas of the Wealth of Nations. So great have been the economic changes in the world due to the development of America, the illustrations in the Wealth of Nations which bear particularly upon the American colonies are now with difficulty estimated at their original value. It should be remembered that this book, which Buckle calls "the most important book ever written," and "the most valuable contribution ever made by a single man toward establishing the principles on which governments should be based," was the first work by a European scholar which made use of the American colonies to illustrate its doctrines, and pointed to those colonies as the country where the new political economy should develop in all its strength. Had Franklin done no more in the world than to contribute these illustrations to Adam Smith's book, he would have had a high place among the great teachers of mankind. Among books on economics of modern government the Wealth of Nations is to be classed with the Federalist, De Tocqueville's Democracy in America, and Bryce's American Commonwealth.

Franklin influenced English opinion by his association with the leading men of the times. The educational influence of such association may be suggested by mentioning some of his English friends. He was intimate with Burke, Hume, the Bishop of St. Asaph, Lord Kames, Sir John Pringle, Dr. Fothergill, Dr. Cannon, Dr. Richard Price, and Dr. Priestley; among his acquaintances were Lord Shelbourne, the Marquis of Rockingham, Lord De Lespencer, Lord Bathurst,

[a] See, specially, Franklin's idea of labor as a measure of wealth, expanded by Smith in Book I, and consult index to The Wealth of Nations, title "America," for illustrations of Franklin's influence on Smith.

Lord North, the astronomer Maskelyne, and Lord Morton. He was most intimate with Dr. Priestley, Dr. Shipley, the Bishop of St. Asaph, and David Hume.

Franklin and Priestley.

In a conversation between Franklin and Priestley one evening, at the Royal Society, the question arose, "What is the most desirable invention that remains to be made?" Franklin answered, "The spinning of two threads at the same time." We are told that before he left London, Hargraves and Arkwright had perfected machinery by which 40 threads were spun by the same motion.[a]

Franklin's reply is illustrative of his utilitarianism; he lived in the days of leather breeches and vests and cumbersome greatcoats, when the poor were not clad in comfort. So expensive was woolen cloth, a family was obliged to make full use of it when once in possession. As is attested by the recorded wills of thousands of Americans of that time, the personal apparel of the parents was devised to the individual members of the family.

His services to his country by educating England to some comprehension of the conditions of the American colonies were temporarily suspended by his return to America in 1775, when it seemed to many that he had failed in securing the object of his mission. Subsequent events, however, proved that his contributions to the newspapers, in which he had discussed the American situation in a broad way, had educated the public mind, and his intimacy with men and women of learning and influence had laid the foundations of a political party.

Franklin's method in composition.

His writings, which seem the spontaneous production of an easy mind, were the result of painstaking effort, of repeated interlineation, revision, and rewriting, and his best pieces were recast as many as seven or eight times before he published them. Among the Franklin papers in Washington are the successive copies of some of his most celebrated pieces. It is surprising, at first thought, that a man so busy as he could find time for such revision, and would have patience to give such detailed attention to the pieces which he wrote for the pleasure of his friends; but he loved details, and excelled in the exquisite practice of literary refinement. His anecdote or his scientific paper, freed from all useless words, at last attained the simple and concise style which he so frequently had pronounced the most perfect. His earliest defense of an education in English was doubtless suggested by his own patience and experience in writing his native tongue. He could not see any advantage in traveling along Italian Row, Spanish Row, and French Row, in the midst of the literary Vanity Fair, when the English way was so direct, convenient, and plain.

Origin of the seal of the United States.

He never outgrew the lessons of his own efforts in self-culture. Perhaps history affords no better illustration of the effects of early education on the mind when men are called to decide on important matters than the curious judgment of the committee appointed by Congress July 4, 1776, consisting of Franklin, Jefferson, and John Adams, to prepare a device for a seal for the General Government.[b] The various devices proposed by the several members of the committee suggest the education which each had received in his boyhood. We learn from Adams that Dr. Franklin proposed as a device Moses lifting up his wand and dividing the Red Sea, and Pharaoh in his chariot overwhelmed with the waters, and the motto, "Rebellion to tyrants is obedience to God." Probably Franklin's memory of his home training in Milk street, where his childish ideas were colored by incidents in Jewish history, may explain the origin of his device.

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[a] There are spinning mules in operation now in the city of Philadelphia which will spin 1,000 threads at a time. See Weeden's Social and Economic History of New England, remarks on "cloth," and "textile fabrics."

[b] The Seal of the United States; How it Was Developed and Adopted, Washington, Department of State, 1892.

Jefferson proposed the Children of Israel in the wilderness; led by a cloud by day, and a pillar of fire by night; and, on the other side, Hengist and Horsa, the Saxon chiefs, from whom we claim the honor of being descended, and whose political principles and form of government we have assumed. Evidently Jefferson's youthful training was not wholly biblical, and the curious mixture of Hebrewism and British mythology was characteristic of constructive and composite Jeffersonian politics.

Devices by Franklin, Adams, and Jefferson.

John Adams forgot his Old Testament training and thought the choice should be of Hercules, "as engraved by Gribelin, in some editions of Lord Shaftesbury's works; the hero resting on his club; Virtue, pointing to her rugged mountain on one hand, and persuading him to ascend; Sloth, glancing at her flowery paths of pleasure, wantonly reclining on the ground, displaying the charms both of her eloquence and person, to seduce him into vice." Adams had read the seductive Shaftesbury at the turning point in his youthful education, and, characteristically abandoning the plain highway of Hebrew history, preferred the abstractions of the founder of the Carolinas.

It might be thought that, when suggesting a seal for the United States, Franklin would have proposed the figure of a saw, a hammer, or a printing press. After nearly six weeks' deliberation, Moses and Pharaoh and Hengist and Horsa and Lord Shaftesbury's Hercules were left behind, and the committee recommended a seal emblematic of the composite character of American institutions "A rose for England, a thistle for Scotland, a harp for Ireland, a fleur de lis for France, a black eagle for Germany, and a lion for the Low Countries." The name, the United States, was to appear by its initials upon the border, and the goddess of liberty, in armor, with spear, cap, and shield, was to support the emblazonment. Justice, with naked sword, was to keep guard. All was to be under the "eye of Providence" in a radiant triangle, whose glory extends over the shield and beyond the figures. The motto should be, "E Pluribus Unum," and round the whole should run the legend "Seal of the United States of America, MDCCLXXVI." Franklin seems, however, to have won the committee to his idea, and on the reverse of the seal Pharaoh was to sit in his chariot, with a crown on his head and a sword in his hand, passing through the divided waters of the Red Sea in pursuit of the fleeing Israelites. But even here Franklin illustrated his innate diplomacy by compromising with Jefferson in the device of a pillar of fire on a cloud, expressive of the Divine presence, which beamed on Moses, who stood on the shore extending his hand over the waters and causing the fearful overflow. Franklin's motto was retained. Happily for the device on our national seal, Dr. Franklin at this time was sent to France, and other committees, perhaps taking a hint from his famous story of the hatter, suppressed all of the original design except the motto and the eye of Providence.

Experiments in the Gulf Stream.

It was on his rough and painful voyage to France, in December, 1776, that Franklin, though suffering the miseries of unwholesome accommodations and almost continuous sea sickness, "contrived every day to take the temperature of the ocean, in order to verify anew his discovery of the warmth of the Gulf Stream." He could no more resist the opportunity of making experiments than he could resist being cheerful. An interesting collection of data might be made from his writings illustrative of his method of experimentation. It may be said that scarcely a page of his collected works fails to contain a suggestion of some experiment to determine the usefulness of the proposition under examination. His influence in American education is chiefly due to his starting his enginery of experiment. In the wake of his useful life there has followed a number of noble men who have contributed to the welfare of mankind by their experiments in connection with institutions founded by him or those founded under the impulse of his ideas.

Translation of the first State constitutions into French.

During his long residence in France he continued to educate Europe in American affairs, and not in these alone, but also in the principles of representative government. He put into the hands of Dr. Dubourg [a] a volume of the first constitutions of the American States and superintended their translation into French. It is of these constitutions that Thomas Paine said, "They were to liberty what grammar is to language; they define its parts of speech, and practically construct them into syntax." Their publication was opposed for a long time by the French Government, but public opinion at last forced them into print. The effect of thus bringing American ideas before the people of France is touched on by Franklin in a letter to Dr. Samuel Cooper, of Boston, in May, 1777:

All Europe is on our side of the question, as far as applause and good wishes can carry them. Those who live under arbitrary power do nevertheless approve of liberty, and wish for it; they almost despair of recovering it in Europe; they read the translations of our separate colony (?) constitutions with rapture, and there are such numbers everywhere who talk of removing to America with their families and fortunes as soon as peace and our independence shall be established; that it is generally believed we shall have a prodigious addition of strength, wealth, and arts from the emigrations of Europe, and it is thought that to lessen or prevent such emigrations the tyrannies established there must relax and allow more liberty to their people. Hence it is a common observation here that our cause is the cause of all mankind, and that we are fighting for their liberty in defending our own.

Turgot and Neckar.

This passage well illustrates Franklin's political economy. He would appeal to the public; he would encourage emigration to America at a time when emigration was almost unknown, when the difficulties in the way of the German or French or Dutch family who would find a home in America practically prohibited emigration. Franklin proceeded on universal principles and made the American cause "the cause of all mankind." He touched the French mind at a point where the slightest friction kindled a flame, and the effect of the publication of our first constitutions in hastening and shaping the French Revolution is beyond computation. It is known that Turgot and Neckar opposed giving French aid to the American colonies on the ground of the tremendous cost in which it would involve France, not merely depleting the treasury, but undermining the monarchy.

Influence of Franklin in France.

It is Franklin's work in France which gave expression there to the philosophy of David Hume and the economy of Adam Smith. These three men—Franklin, Hume, and Smith—were the intellectual triumvirate of the eighteenth century. The philosophy of Hume, the economy of Adam Smith, and the practicality of Franklin represent the three controlling ideas of that creative period; to the influence of these three men, who cooperated at a critical time in the development of constitutional government, the world owes the development of modern science, of modern industry, and of representative government. The meeting of three such forces in the world signified that in future ages mankind should enjoy freedom of thought, freedom in commerce, and freedom in government.

In his Proposals Relating to the Education of Youth in Pennsylvania he declared that "the idea of what is true merit should also be often presented to youth, explained and impressed on their minds, as consisting in the inclination joined with the ability to serve mankind, one's country, friends, and family; which ability is, with the blessing of God, to be acquired or greatly increased by true learning, and should indeed be the great aim and end of all learning"—a precept he practiced. The translations of the American constitutions served "the cause of all mankind."

[a] It was M. Dubourg who had been chiefly instrumental in publishing many of Franklin's letters on electricity.

Franklin was constantly mindful of his friends and his family whenever he could serve them, either in private or public life; any of his relatives who was capable of filling office usually filled one. His life is full of applications of his system of prizes and rewards laid down in his scheme for an ideal English school. If he would give gilt books to children, he would give to those who served their country the reward of public recognition. Here is an instance in point. Thomas Wren was a dissenting clergyman at Portsmouth, England, who sympathized with the American cause, pitied the distress of the American prisoners, and devoted much of his time to the relief of those in Forton jail. He gave freely of his own small fortune; obtained the assistance of his friends; he bought clothing, medicine, and food, and, in every way in his power, contributed to the comfort of those unhappy men. Dr. Franklin was in correspondence with him throughout the war, and as a slight proof of his sense of the indebtedness of the public to him, was instrumental in securing him a vote of thanks from Congress in 1783 and the degree of Doctor of Divinity from Princeton College.

He applies his theory of prizes.

Illustrations abound in his life of his constant practice of the principles laid down in his scheme for the training of youth. Utilitarianism has its machinery of compensation and he ever worked this with success. His scheme of education made no provision for the useless man, and on several occasions he makes an ancient college, as in case of Princeton, the means of rewarding a useful act. He seems to have discovered an appropriateness in the granting of college degrees, which, at that time as now, were often abused.

It was in 1778, while in his seventy-second year, when he and John Adams were associated in diplomatic work in Paris, that the difference in their training became apparent. Adams was a lawyer, regular in all his habits, clear in interpreting his own course in public affairs, and one of that great company of human beings who worship system and order. The first cause of difference between the two men related to order. Of order Franklin had little and Adams much. Everybody recalls the exquisite confession in Franklin's Autobiography of his failure to acquire orderly habits. It occurs in his account of his effort to apply his Art of Virtue. One of the virtues, according to this art, was order.

Franklin and Adams in France.

I made so little progress in amendment [he confesses] and had such frequent relapses that I was almost ready to give up the attempt and content myself with a faulty character in that respect, like the man who, in buying an ax of a smith, my neighbor, desired to have the whole of its surface as bright as the edge. The smith consented to grind it bright for him if he would turn the wheel; he turned, while the smith pressed the broad face of the ax hard and heavily on the stone, which made the turning of it very fatiguing. The man came every now and then from the wheel to see how the work went on, and at length would take his ax as it was, without further grinding. "No," said the smith, "turn on, turn on; we shall have it bright by and by; as yet it is only speckled." "Yes," says the man, "but I think I like a speckled ax best." And I believe this may have been the case with many who, having for want of some such means as I employed found the difficulty of obtaining good and breaking bad habits in other points of vice and virtue, have given up the struggle and concluded that "a speckled ax was best;" for something that pretended to be reason was every now and then suggesting to me that such extreme nicety as I exacted of myself might be a kind of foppery in morals, which, if it were known, would make me ridiculous; that a perfect character might be attended with the inconvenience of being envied and hated; and that a benevolent man should allow a few faults in himself, to keep his friends in countenance. In truth, I found myself incorrigible with respect to order; and now I am grown old, and my memory bad, I feel very sensibly the want of it.

The story of the speckled ax.

If Franklin's appetite for order had been keener he might possibly have collected his various writings, or completed his autobiography, or arranged more perfectly the details of many of his experiments, or set forth somewhere the

means by which he arrived at so many of his opinions. Though he is always taking us into his confidence, there are many interesting matters about him on which we would like further information. Like Daniel Webster, he was capable of taking his case. His large soul had need to be stirred now and then by lesser men. He would have never undertaken his autobiography—that priceless fragment of literature—had it not been pressed upon him repeatedly by his friends.

As others saw him.

That he was estimated a hundred years ago very much as he is to-day is evident from a letter to him by Benjamin Vaughan, bearing date Paris, January 31, 1783, in which he is urged to continue his autobiography and to write his Art of Virtue.

Your history is so remarkable that if you do not give it somebody else will certainly give it, and perhaps so as nearly to do as much harm as your own management of the thing might do good.

It will moreover present a table of internal circumstances of your country which will very much tend to invite to it settlers of virtuous and manly minds; and, considering the eagerness with which such information is sought by them and the extent of your reputation, I do not know of a more efficacious advertisement than your biography would give.

All that has happened to you is also connected with the detail of the manners and situation of a rising people, and in this respect I do not think that the writings of Cæsar and Tacitus can be more interesting to a true judge of human nature and society.

But these, sir, are small reasons, in my opinion, compared with the chance which your life will give for the forming of future great men; and in conjunction with your Art of Virtue (which you design to publish) of improving the features of private character, and consequently of aiding all happiness, both public and domestic.

The two works I allude to, sir, will in particular give a noble rule and example of self-education. School and other education constantly proceed upon false principles, and shows a clumsy apparatus pointed at a false mark; but your apparatus is simple, and the mark a true one; and while parents and young persons are left destitute of other just means of estimating and becoming prepared for a reasonable course in life, your discovery that the thing is in many a man's private power will be invaluable.

Influence upon the private character, late in life, is not only an influence late in life, but a weak influence. It is in youth that we plant our chief habits and prejudices; it is in youth that we take our party as to profession, pursuits, and matrimony. In youth, therefore, the turn is given; in youth the education even of the next generation is given; in youth the private and public character is determined; and the term of life extending but from youth to age, life ought to begin well from youth; and more especially before we take our party as to our principal objects.

But your biography will not merely teach self-education, but the education of a wise man; and the wisest man will receive lights and improve his progress by seeing detailed the conduct of another wise man. And why are weaker men to be deprived of such helps, when we see our race has been blundering on in the dark, almost without a guide in this particular, from the farthest trace of time? Show then, sir, how much is to be done, both to sons and fathers; and invite all wise men to become like yourself, and other men to become wise.

When we see how cruel statesmen and warriors can be to the human race, and how absurd distinguished men can be to their acquaintance, it will be instructive to observe the instances multiply of pacific, acquiescing manners; and to find how compatible it is to be great and domestic, enviable and yet good humored.

The little private incidents which you will also have to relate will have considerable use, as we want, above all things, rules of prudence in ordinary affairs; and it will be curious to see how you have acted in these. It will be so far a sort of key to life, and explain many things that all men ought to have once explained to them, to give them a chance of becoming wise by foresight.

The nearest thing to having experience of one's own is to have other people's affairs brought before us in a shape that is interesting; this is sure to happen from your pen; your affairs and management will have an air of simplicity or importance that will not fail to strike, and I am convinced you have conducted them with as much originality as if you had been conducting discussions in politics or philosophy, and what more worthy of experiments and system (its importance and its errors considered) than human life?

Some men have been virtuous blindly, others have speculated fantastically, and others have been shrewd to bad purposes; but you, sir, I am sure, will give under your hand nothing but what is at the same moment wise, practical, and good.

Your account of yourself (for I suppose the parallel I am drawing for Dr. Franklin will hold not only in point of character, but of private history) will show that you are ashamed of no origin; a thing the more important, as you prove how little necessary all origin is to happiness, virtue, or greatness.

As no end likewise happens without a means, so we shall find, sir, that even you yourself framed a plan by which you became considerable; but at the same time we may see that though the event is flattering, the means are as simple as wisdom could make them; that is, depending upon nature, virtue, thought, and habit.

Another thing demonstrated will be the propriety of every man's waiting for his time for appearing upon the stage of the world. Our sensations being very much fixed to the moment, we are apt to forget that more moments are to follow the first, and consequently that man should arrange his conduct so as to suit the whole of a life. Your attribution appears to have been applied to your life, and the passing moments of it have been enlivened with content and enjoyment, instead of being tormented with foolish impatience or regrets. Such a conduct is easy for those who make virtue and themselves their standard, and who try to keep themselves in countenance by examples of other truly great men, of whom patience is so often the characteristic.

Your Quaker correspondent * * * praised your frugality, diligence, and temperance, which he considered as a pattern for all youth; but it is singular that he should have forgotten your modesty and your disinterestedness, without which you never could have waited for your advancement or found your situation in the meantime comfortable; which is a strong lesson to show the poverty of glory and the importance of regulating our minds. If this correspondent had known the nature of your reputation as well as I do he would have said, Your former writings and measures would secure attention to your Biography and Art of Virtue; and your Biography and Art of Virtue, in return, would secure attention to them. This is an advantage attendant upon a various character and which brings all that belongs to it into greater play; and it is the more useful, as perhaps more persons are at a loss for the means of improving their minds and characters than they are for the time or the inclination to do it. * * * If it encourages more writings of the same kind with your own, and induces more men to spend lives fit to be written, it will be worth all Plutarch's Lives put together. * * * Considering your great age, the caution of your character, and your peculiar style of thinking, it is not likely that any one besides yourself can be sufficiently master of the facts of your life or the intentions of your mind.

Besides all this, the immense revolution of the present period will necessarily turn our attention toward the author of it; and when virtuous principles have been pretended in it, it will be highly important to show that such have really influenced; and as your own character will be the principal one to receive a scrutiny, it is proper (even for its effects upon your vast and rising country, as well as upon England and upon Europe) that it should stand respectable and eternal.

For the furtherance of human happiness, I have always maintained that it is necessary to prove that man is not even at present a vicious and detestable animal; and still more, to prove that good management may greatly amend him; and it is for much the same reason that I am anxious to see the opinion established that there are fair characters existing among the individuals of the race, for the moment that all men, without exception, shall be conceived abandoned, good people will cease efforts deemed to be hopeless, and perhaps think of taking their share in the scramble of life, or at least of making it comfortable principally for themselves. * * *

Extend your views even further: do not stop at those who speak the English tongue, but after having settled so many points in nature and politics think of bettering the whole race of men. .

The Autobiography resumed.

This appeal was turning the tables on Franklin and was happily effectual in causing him to resume his Autobiography at Passy, near Paris, in the following year. The letter is prophetic of the place that Franklin was to hold in American life. Who can estimate the number of readers of the Autobiography, and who can tell how many lives have been made useful by it? Fifty years ago the means for securing an education in America were imperfect. Franklin's Autobiography was the great textbook of active minds among the young, and in America to-day there are few emi-

nent self-made men 60 years of age and native born who will not place Franklin's Autobiography among the few books that suggested a possible career in life by self-education. The book did for their generation even more than Sartor Resartus orEmerson's Essays did for the generation of forty years ago. The Autobiography long ago became a book-making book because Franklin's life was a book-making life.

Franklin asked to make a schoolbook.

The old Congress of the Confederation seems to have realized the value of education in a democracy, for in 1780 it requested Franklin to make a schoolbook out of the record of British atrocities in the American war. He once described this commission to his English friend Hartley. The book was to have "thirty-five prints, designed here by good artists, and engraved, each expressing one or more of the different horrid facts to be inserted in the book, in order to impress the minds of children and posterity with a deep sense of your bloody and insatiable malice and wickedness." But Franklin was not a Eugene Sue; he resolved not to undertake the work, hoping that a reconciliation might be effected, but added, "every fresh instance of your devilism weakens that resolution and makes me abominate the thought of a reunion with such a people." Benjamin Vaughan was wiser than Congress when he intimated that the Autobiography would make a great American schoolbook. The influence of Franklin on American life has been greater through the Autobiography than through the institutions which he founded or which were founded by his followers. Many schools in America now use the Autobiography as a textbook.

Franklin was a prince of democrats. The great feature of his entire public policy is well said by Parton to be "to enlighten public opinion, and to bring enlightened public opinion to bear upon the councils of public men." In this lofty effort he was surpassed by none of his contemporaries and has been equaled by few of his successors.

He presents a library to the town of Franklin.

In 1784 a town in Norfolk County, Massachusetts, in its sixth year, took upon itself his name, and sending notice of the honor informed him that they would build a suitable tower to their church if he would present them with a bell. His famous reply asking them to accept a gift of books instead of a bell, "sense being preferable to sound," led to the founding of a public library in the town. Its first books were selected by Dr. Price, who, at Franklin's request, limited the choice to such as were most proper to inculcate principles of sound religion and just government. He was too busy probably to make out the full list himself. At his sister's request he recommended Stennet's Discourse on Personal Religion. The books selected by Dr. Price were duly presented to the town. They reflect the ruling ideas of the period, but most of them were long since put upon the high shelves in the library.[a]

[a] They were as follows: Clarke's works, Hoadley's works, Barrow's works, Ridgeley's works, Locke's works, Sidney's works, Montesquieu's Spirit of Laws, Blackstone's Commentaries, Watson's Tracts, Newton on the Prophecies, Law on Religion, Priestley's Institutes, Priestley's Corruptions, Price and Priestley, Lyndsey's Apology, Lyndsey's Sequel, Abernethy's Sermons, Duchal's Sermons, Price's Morals, Price on Providence, Price on Liberty, Price's Sermons, Price on the Christian Scheme, Needham's Free State, West and Lyttleton on the Resurrection, Stennet's Sermons, Addison's Evidences, Gordon's Tacitus, Backus's History, Lardner on the Logos, Watts's Orthodoxy and Charity, Brainerd's Life, Bellamy's True Religion, Doddridge's Life, Bellamy's Permission of Sin, Fordyce's Sermons, Hemmenway against Hopkins, Hopkins on Holiness, Life of Cromwell, Fulfilling of the Scriptures, Watts on the Passions, Watts's Logic, Edwards on Religion, Dickinson on the Five Points, Christian History, Prideaux's Connections, Cooper on Predestination, Cambridge Platform, Stoddard's Safety of Appearing, Burkett on Personal Reformation, Barnard's Sermons, Shepard's Sound Believer, History of the Rebellion, Janeway's Life, Hopkins's System, American Preacher, Emmons's Sermons, Thomas's Laws of Massachusetts, American Constitutions, Young's Night Thoughts, Pilgrim's Progress, Ames's Orations, Spectator, Life of Baron Trenck, Cheap Repository, Moral Repository, Fitch's Poems, Erskine's Sermons.

It was about this time that Franklin's name appeared on the map of the United States, in the State of Franklin (Tennessee), in counties, and in towns.

"Free ships make free goods."

The last official act done by him in Europe was the affixing of his signature to the treaty with Prussia,[a] which contained what was considered at that time a novel proposition, but one to which he was devoted, and which he was instrumental in introducing, laying it down that free ships make free goods, and that private property shall be secure from seizure and destruction in time of war. Washington spoke of this treaty as marking a new era in negotiation, but its liberal principles have not yet won full recognition in diplomacy and international law.

The return voyage from France, in 1785, lasted seven weeks and gave him another opportunity for experiment, and he availed himself of his leisure to write an elaborate paper, in the form of a letter, to David Le Roy, on the construction, sailing, loading, provisioning, and saving of ships, and the winds, currents, and temperature of the sea, with 27 illustrations and sea charts and 6 tables of thermometrical observations. It was the eighth time that he had crossed the Atlantic and was productive of one of his most useful suggestions—the construction of water-tight compartments in ships, now long in common use. He took the idea from the Chinese, with whose habits his wide reading had acquainted him.[b]

Welcomed home by the university.

One his return to Philadelphia, after his long absence in France, he received congratulatory addresses from the assembly of Pennsylvania and from the provost, vice-provost, and professors of the University of Pennsylvania, which he had been instrumental in founding.

The address, September 16, 1785, of the provost and his associates was as follows:

HONORED SIR: The provost, vice-provost, and professors of the University of Pennsylvania beg leave to congratulate you on your safe arrival in your native country after having accomplished the duties of your exalted character with dignity and success.

While we participate in the general happiness of America, to the establishment of which your political abilities and patriotic exertions have so signally contributed, we feel a particular pleasure in paying our acknowledgments to the gentleman who first projected the liberal plan of the institution over which we have the honor to preside.

Not contented with enriching the world with the most important discoveries in natural philosophy, your benevolence and liberality of sentiment early engaged you to make provision for exciting a spirit of inquiry into the secret operations of nature, for exalting and refining the genius of America by the propagation of useful learning, and for qualifying many of her sons to make that illustrious figure which has commanded the esteem and admiration of the most polished nations of Europe.

Among the many benevolent projections which have laid so ample a foundation for the esteem and gratitude of your native country, permit this seminary to reckon her first establishment, upon the solid principles of equal liberty, as one of the most considerable and important. And now, when restored, through the influence of our happy constitution, to her original broad and catholic bottom; when enriched by the protection of generous donations of a public-spirited and patriotic assembly; and when flourishing under the countenance of the best friends of religion, learning, and liberty in the State, she can not but promise herself the continued patronage of the evening of that life which divine Providence has so eminently distinguished.

May the same indulgent Providence yet continue your protracted life, enriched and crowned with the best of blessings, to nurse and cherish this favorite child of your youth; that the future sons of science in this Western World may have additional reason to remember the name of Franklin with gratitude and pleasure.

Signed, in the name and by order of the faculty, by

JOHN EWING, *Provost.*

[a] September 10, 1785, Treaties and Conventions, 899-907.

[b] The paper was afterwards read at a meeting of the American Philosophical Society, December 2, 1785, and is found in Volume IX of Bigelow's edition of Franklin's Works.

The modesty of Franklin's reply is equaled only by Washington's when he accepted the office of Commander in Chief of the American Army:

I am greatly obliged, gentlemen, by your kind congratulations on my safe arrival.

It gives me extreme pleasure to find that seminaries of learning are increasing in America, and particularly that the university over which you preside continues to flourish. My best wishes will always attend it.

The instruction of youth is one of those employments which to the public are most useful; it ought, therefore, to be esteemed among the most honorable. Its successful exercise does not, however, always meet with the reward it merits, except in the satisfaction of having contributed to the forming of virtuous and able men for the service of their country.

The address is sufficient evidence of the recognition at the time of his services to education, and of the friendly relations which existed between him and the university of which he was a trustee. The minutes of the meetings of the board show that he had always attended them when he was present in the country. The proof of his presence is his signature, as it was customary for each member of the board present at a meeting to attest the fact by signing the record.

On his return to Philadelphia he was almost unanimously elected president of the Commonwealth,[a] and was inducted into office with much ceremony, the chief officers of the State and city government, the provost and faculty of the University of Pennsylvania, the militia and the citizens joining in the inauguration. Like Washington, Franklin accepted the cares of the presidency, but refused any salary, acting in conformity with his well-known principles that in a representative democracy the most responsible offices should be filled without compensation. He was three times chosen to the office, and he gave the salary toward the founding of colleges and other useful institutions in the State.

Franklin College founded.

His countrymen had come to recognize him as the patron of every enterprise of a literary or philanthropic character, and it was during his presidency in 1786 that a plan for a college in the borough of Lancaster, Pa., was presented to the general assembly and approved. Out of respect to the character of "his excellency the president of the State," the institution was called Franklin College.

Opening of Franklin College.

On the 6th of June, 1787, the college was formally opened. It had been founded to meet the wants of the German population in Pennsylvania, and was under the control of the Lutheran Church.[b] Of the opening exercises[c] an interesting account remains.

Whether Franklin was personally present at this festival is doubtful. That he was in Lancaster at some time in the year 1787, on an occasion which has been denominated "the laying of the corner stone," appears highly probable. A French writer, Hector St. John Crèvecœur, has preserved a record of such an event in a book of travels: "In the year 1787 I accompanied the venerable Franklin, at that time governor of Pennsylvania, on a journey to Lancaster, where he had been invited to lay the corner stone of a college which he had founded there for the Germans. In the evening of the day of the ceremony we were talking of the different nations which inhabit the continent." Crèvecœur then gives the substance

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[a] Strictly speaking, president of the executive council.

[b] In the exercises attending the opening of the college, Franklin, it is said, was especially pleased to see Episcopalians, Presbyterians, Lutherans, Catholics, Moravians, and Quakers all join harmoniously in the celebration.

[c] Of these exercises the Abbé Morellet wrote to Franklin from Auteuil, July 31, 1787: "[In the dedication of your college in the county of Lancaster, and the fine procession and the religious ceremony where were met together Presbyterians, Episcopalians, Lutherans, Catholics, Moravians, e tutti quanti, there was toleration in practice."

See reprint, The Founding of Franklin College, 1787, by Rev. J. H. Dubbs, D. D., from the Reformed Quarterly Review, Philadelphia Reformed Church Publication Board, 907 Arch street.

of a conversation between Franklin and one of the principal residents of the town concerning the origin of the American Indians.

Was Franklin present?

The above statement appears clear and explicit, but in order to make assurance doubly sure the Rev. Dr. F. A. Muhlenberg examined the original authorities. In a private letter of July 27, 1887, he says:

I found a copy of Duyckinck's Cyclopedia in the Mercantile Library, and on page 175, as you mentioned, the exact words of your quotation. There was, however, no copy of the original work. I was not altogether satisfied. I went next to the Philadelphia Library, and found an edition of Hector St. John Crèvecœur in French, into which it had been translated by the author. In the second chapter I found the same in substance with that given by Duyckinck, and the conversation with one of the citizens of the "ville" on the subject of the Indians of this country. The conversation is said to have taken place after the ceremonies. The words used by Mr. Crèvecœur for the corner stone are "*la première pierre.*" Such an explicit statement, with such details, could not be questioned. No man would, in the possession of reason, attempt to deceive the world in such a fashion. Besides, in the other parts of his work, consisting of three volumes in this edition, he gives descriptions of our country, with engravings, which prove that he was an eyewitness of what he describes, and his truthful character. Still further, all the books on bibliography represent him as a reliable author. Dr. Franklin was, therefore, in Lancaster, at what Mr. Crèvecœur calls the laying of the "*première pierre,*" in the year 1787.

It is not probable that the occasion to which reference is here made was literally the laying of the corner stone, as the college had no building of its own until a later period. There might have been a minor festival of some sort prior to the formal opening in June; but if this was the case it is strange that there is no reference to the fact in the correspondence of the times. It is, after all, most likely that Crèvecœur refers to the formal opening, or so-called "dedication," and that this was the occasion on which Franklin was present; the fact is nowhere explicitly stated, but there are many circumstances which render it probable. Franklin's name was frequently mentioned throughout the services in a way which seems to indicate his presence. In each of the three original hymns he is spoken of with the highest reverence, and in one of them the college is termed "his child." The prayer delivered on the occasion by the Rev. Mr. Herbst closes with an intercession for "the noble protector of the college, His Excellency Benjamin Franklin." Dr. Muhlenberg says, "I think it can be fairly inferred from the connection in which it stands and the peculiar prominence given to it that his excellency must have been present."

Evidence of his attendance.

It has been asserted that it was impossible for Franklin to be in Lancaster, on account of his engagements in the Constitutional Convention in Philadelphia. On this subject Dr. Muhlenberg says in the letter from which I have quoted—

I have examined Madison's, Elliott's, and Yates's reports, and one other, the author of which I do not now remember. I find that Dr. Franklin is reported by one and all of these authorities as present at the Constitutional Convention, on Saturday and Monday, the 2d and 4th of June, taking part also in the proceedings, but there is no mention of his name or allusion to him on Wednesday, Thursday, and Friday, the 6th, 7th, and 8th of June, but on Saturday, 9th, his name again appears. Here is a margin to render it probable that he was absent for cause.

This is an error. His name next appears on the 11th (Madison and Yates), when he presented, through Wilson, his plan of representation. There is no reference to a Lancaster visit in Franklin's works. He was quite feeble in body at this time and was unable to stand and address the convention.

Franklin in the convention of 1787.

In the year 1787 he became a member of the convention which framed the Constitution of the United States. He was somewhat of a physiocrat at this time, favoring a liberal government, but not one tending to monarchy, nor so big as to fall into anarchy. He

was the diplomat in the convention, and typified the controlling idea of compromise, which at last gave us our Constitution.[a]

During the closing years of his life we have glimpses of the persistency of the ideas which he had formulated many years before. The well-known account of Dr. Manasseh Cutler's visit to him in July, 1787, shows the interest which Franklin still took in natural history, "of which," says Cutler, "he seemed extremely fond, while the other gentlemen were swallowed up with politics."

When, on the 17th of September, the convention adjourned, Franklin exerted himself to promote the adoption of the Constitution. Its ratification by ten States gave occasion for a splendid celebration in Philadelphia in honor of the event, when all the interests of the city contributed to an industrial and civic parade. James Wilson, one of the delegates from Pennsylvania, eminent as a lawyer, a man whose services in the convention Washington considered as unsurpassed, and whom Bryce in his American Commonwealth has called "the greatest lawyer in the convention," who became a professor of law in the University of Pennsylvania and justice of the Supreme Court of the United States, pronounced the oration. In the industrial parade there was a car upon which a printing press was operated and from which were scattered among the people copies of a song in honor of the trades, written by Franklin. It is suggestive of his utilitarian notions.

"Ye tailors! of ancient and noble renown,
Who clothe all the people in country and town,
Remember that Adam, your father and head,
Though lord of the world, was a tailor by trade.

"Ye shoemakers! noble from ages long past,
Have defended your rights with your *awl* to the *last;*
And cobblers so merry, not only stop holes,
But work night and day for the good of our *soles.*

"Ye hatters! who oft with hands not very fair,
Fix hats on a block for a blockhead to wear,
Though charity covers a sin now and then,
You cover the heads and the sins of all men.

"And carders, and spinners, and weavers attend,
And take the advice of Poor Richard, your friend;
Stick close to your looms, your wheels, and your card,
And you never need fear of the times being hard.

"Ye coopers! who rattle with drivers and adz,
A lecture each day upon hoops and on heads,
The famous old ballad of Love in a tub,
You may sing to the tune of your rub-a-dub-dub.

"Each tradesman turn out with his tools in his hand,
To cherish the arts and keep peace in the land;
Each 'prentice and journeyman join in my song,
And let the brisk chorus go bounding along."

The lines suggest how Franklin viewed the world as an opportunity for an industrious and intelligent apprentice.[b]

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[a] For a detailed account of his services in the formation of the Constitution, see my Constitutional History of the United States, 1765-1895, index Franklin.

[b] There is an interesting and curious illustration of changes in times and manners in a passage by Parton concerning the things which Franklin would particularly notice had he returned to this world in 1870:

He sometimes amused his friends with humorous predictions of inventions yet to be, and expressed a wish to revisit the earth at the end of the century to see how man was getting on. Would that he could! How pleasant to show the shade of Franklin about the modern world! What would he say of the Great Eastern, the Erie Canal, the locomotive, the telegraph, the Hoe printing press, the steam typesetter, chloroform, the sewing machine, the Continental Hotel, the Fairmount waterworks, the improved strawberry, the omnibus, gaslight, the Sanitary Commission, Dr. Buckle's History, Mills's Political Economy, Herbert Spencer's First Principles, Adam Bede, David Copperfield, the Philadelphia High School, Henry Ward Beecher's church, the Heart of the Andes? Surely he would admit that we have done pretty well in the seventy-five years that have passed since he left.

Old age had crept upon him, but his mental powers were undiminished and his opinion of himself he expressed when he said, "I seem to have intruded myself into the company of posterity."

In 1789 he was rarely free from pain and was confined to his bed much of the time. We learn of him through his letters, which, though less frequent, were equal to any that had made his correspondence so valuable and interesting. Though suffering great agony, he sought mental relief in reading Johnson's Lives of the Poets, and a life of Watts, his favorite author. His opinion of Watts confirms the judgment of thousands who have found that hymnologist their comfort. It was at this time also that he wrote his protest against the study of Latin and Greek in preference to the study of English,[a] a masterly piece which anticipated a reform in modern education.

In August, 1788, the Library Company,[b] the outgrowth of the Junto of half a century before, had laid the corner stone of its new building in Philadelphia, on Fifth street, opposite the statehouse.

Franklin, unable on account of his infirmities to attend the ceremony, wrote the inscription for the corner stone, omitting any mention of himself. The committee amended the inscription, which reads:

Be it remembered
In honor of the Philadelphia Youth,
(then chiefly artificers)
that in MDCCXXXI.,
they cheerfully,
at the instance of Benjamin Franklin,
one of their number,
instituted the Philadelphia Library,
which, though small at first,
is become highly valuable and extensively useful
and which the walls of this edifice
are now destined to contain and preserve,
the first stone of whose foundation
was here placed,
the thirty-first day of August, 1789.[c]

Perhaps no institution founded by him illustrates his sagacity and usefulness better than this library. I referred briefly to its origin in the Junto. In 1880 a new library building was erected at the corner of Juniper and Locust streets, and in 1878 the magnificent structure known as the Ridgway Branch.

Franklin's last word.

His last public act was in keeping with his whole philosophy of life, a reply written on the 23d of March, 1790, but twenty-six days before his death, to a speech of Mr. Jackson, of Georgia, in the Congress of the United States, on slavery. It was addressed to the editor of the Federal Gazette and is in Franklin's happiest style. The essay pretends to be a speech delivered in the Divan of Algiers in 1687 against the petition of the sect called Erika, or Purists, who prayed for the abolition of piracy and slavery as being unjust. All the arguments advanced in favor of negro slavery were applied in this speech with equal force in the justification of the plundering and enslaving of Europeans.[d]

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[a] See Observations Relating to the Intentions of the Original Founders of the Academy in Philadelphia, June, 1789.

[b] By an order of the Library Company, August 31, 1774, the delegates to the first Continental Congress were allowed the use of such of the books of the library as they might have occasion for during their sitting. (Elliott's Debates, Vol. I, 43.)

[c] The original stone was discovered a few years ago and is now set in the north wall of the new library building, Locust and Juniper streets.

[d] Dr. Stuber, a distinguished Philadelphian of that day [says Parton], mentions that many persons searched the book stores and libraries of the town for Martin's Account of his Consulship, anno 1687, from which the speech of Sidi Mehemet Ibrahim was said to have been taken (See the article in full, Bigelow, Vol. X.)

This grand protest against slavery was a happy bequest to mankind. Franklin believed "that equal liberty was originally the portion and is still the birthright of all men, and influenced by the strong ties of humanity and the principles of their institution * * * to use all justifiable endeavors to loosen the bands of slavery and promote a general enjoyment of the blessings of freedom."

A trick for doing good.

He faced death with calmness. If he had neglected to practice order in his life, he made formal preparation for his death. His will—an elaborate document—perpetuated, in its provisions for public charities, his own utilitarian ideas. He remembered his scheme of prizes in his ideal school, and gave £100 to the managers of the Boston free schools, the interest of which should be devoted to the purchase of silver medals for the encouragement of scholarship. He sought to make his benevolence immortal. Though it has been said that his scheme is derived from a French work by Mathon de la Cour, the idea was probably quite his own, as he had suggested it when making a loan to Benjamin Webb many years before.

I send you herewith a bill for ten louis d'ors. I do not pretend to give such a sum; I only lend it to you. When you shall return to your country with a good character, you can not fail of getting into some business that will in time enable you to pay all your debts. In that case, when you meet with another honest man in similar distress you must pay me by lending this sum to him, enjoining him to discharge the debt by a like operation when he shall be able and shall meet with such another opportunity. I hope it may thus go through many hands before it meets a knave that will stop its progress. This is a trick of mine for doing a deal of good with a little money. I am not rich enough to afford much in good works, and so am obliged to be cunning and make the most of a little.

His plan for the benefit of artisans.

His plan was for the benefit of artisans and apprentices and illustrates the ruling ideas of his life.

I have considered that among artisans good apprentices are most likely to make good citizens, and, having myself been bred to a manual art, printing, in my native town, and afterwards assisted to set up my business in Philadelphia by kind loans of money from two friends there, which was the foundation of my fortune and of all the utility in life that may be ascribed to me, I wish to be useful even after my death, if possible, in forming and advancing other young men that may be serviceable to their country in both those towns. To this end I devote two thousand pounds sterling, of which I give one thousand thereof to the inhabitants of the town of Boston, in Massachusetts, and the other thousand to the inhabitants of the city of Philadelphia, in trust, to and for the uses, intents, and purposes hereinafter mentioned and declared.

The said sum of one thousand pounds sterling, if accepted by the inhabitants of the town of Boston, shall be managed under the direction of the selectmen, united with the ministers of the oldest Episcopalian, Congregational, and Presbyterian churches in that town, who are to let out the sum upon interest, at five per cent per annum, to such young married artificers, under the age of twenty-five years, as have served an apprenticeship in the said town, and faithfully fulfilled the duties required in their indentures, so as to obtain a good moral character from at least two respectable citizens, who are willing to become their sureties, in a bond with the applicants, for the repayment of the moneys so lent, with interest, according to the terms hereinafter prescribed; all which bonds are to be taken for Spanish milled dollars, or the value thereof in current gold coin; and the managers shall keep a bound book or books, wherein shall be entered the names of those who shall apply for and receive the benefits of this institution, and of their sureties, together with the sums lent, the dates, and other necessary and proper records respecting the business and concerns of this institution. And as these loans are intended to assist young married artificers in setting up their business, they are to be proportioned, by the discretion of the managers, so as not to exceed sixty pounds sterling to one person, nor to be less than fifteen pounds; and if the number of applicants so entitled should be so large as that the sum will not suffice to afford to each as much as might otherwise not be improper, the proportion to each shall be diminished so as to afford to everyone some assistance. These aids may therefore be small at first, but as the capital increases by the accumulated interest they will be more ample. And in order to serve as many as possible in their turn, as well as to make the repayment of the principal borrowed more easy,

each borrower shall be obliged to pay, with the yearly interest, one-tenth part of the principal, which sums of principal and interest so paid in shall be again let out to fresh borrowers.

Bequest to Boston.

And as it is presumed that there will always be found in Boston virtuous and benevolent citizens, willing to bestow a part of their time in doing good to the rising generation by superintending and managing this institution gratis, it is hoped that no part of the money will at any time be dead or be diverted to other purposes, but be continually augmenting by the interest; in which case there may, in time, be more than the occasions in Boston shall require, and then some may be spared to the neighboring or other towns in the said State of Massachusetts, who may desire to have it, such towns engaging to pay punctually the interest and the portions of the principal annually to the inhabitants of the town of Boston.

If this plan is executed, and succeeds as projected without interruption for one hundred years, the sum will then be one hundred and thirty-one thousand pounds, of which I would have the managers of the donation to the town of Boston then lay out, at their discretion, one hundred thousand pounds in public works, which may be judged of most general utility to the inhabitants, such as fortifications, bridges, aqueducts, public buildings, baths, pavements, or whatever may make living in the town more convenient to its people and render it more agreeable to strangers resorting thither for health or a temporary residence. The remaining thirty-one thousand pounds I would have continued to be let out on interest, in the manner above directed, for another hundred years, as I hope it will have been found that the institution has had a good effect on the conduct of youth and been of service to many worthy characters and useful citizens. At the end of this second term, if no unfortunate accident has prevented the operation, the sum will be four millions and sixty-one thousand pounds sterling, of which I leave one million sixty-one thousand pounds to the disposition of the inhabitants of the town of Boston and three millions to the disposition of the government of the State, not presuming to carry my views farther.

Bequest to Philadelphia.

All the directions herein given respecting the disposition and management of the donation to the inhabitants of Boston I would have observed respecting that to the inhabitants of Philadelphia, only, as Philadelphia is incorporated. I request the corporation of that city to undertake the management, agreeably to the said directions; and I do hereby vest them with full and ample powers for that purpose. * * *

Such was the plan adopted by Franklin for the benefit of a class he always loved—skillful, honest mechanics

III.

THE LAW OF LIVING.

Self-improvement.

At 22 years of age Franklin wrote his Articles of Belief and Acts of Religion, in which he laid down his First Principles. This was his earliest serious effort in self-education in morality. The Principles are a liturgy and a book of prayer, and if the spirit which animated them be accepted as the motive of Franklin's life, it indicates a large purpose to "attain perfection in morals." The whole effort is of a piece with his notion of self-culture—that by self-application man can attain, through the results of personal experiment, perfection in almost any art.

Two years later, in 1730, in his Rules for a Club Established for Mutual Improvement (the celebrated Junto rules), he applied his principles of self-education by cooperating with kindred spirits, and took the first steps toward the characteristic acts of his life—the establishment of useful relations with his fellowmen. The use which he made of the Junto, of which I have already spoken, indicates the large value which he set upon such association. It would be untrue to say that Franklin was the founder of the first debating clubs in America, but it is not untrue that he was the founder of the most useful debating club which ever existed in this country, for the living influence of the Junto exists to this day, and its usefulness is measureable by the influence of the American Philosophical Society, of which it was the beginning.

Use is the law of life.

He applied the famous maxim of Horace, that use is the law of speech, and it became to him the law of education. He learned to write by writing. His numerous contributions to the newspapers gave him practice. In 1741 he began the first American magazine.[a] His paraphrases of the Spectator in his brother's newspaper in Boston, under the pseudonym of "Silence Dogood," were followed by many articles in varying form, improving, we may say, until they attained perfection. The public welfare was the subject of his story, and all of his contributions were written for the common pleasure and instruction. The Busybody, a series of papers contributed to the Weekly Mercury, the first newspaper published in Philadelphia, are indisputably among the first of Franklin's writings, though his own reference to the earlier Silence Dogood papers are evidence that they were his own. He says in the first number of the Busybody: "I have lately entertained some thought of setting up for an author myself, not out of the least vanity, I assure you, or desire of showing my parts, but purely for the good of my country."

These early papers, written in his twenty-third year, show many of the author's characteristics, both in subject and style, and have proved the truth of his favorite idea in English composition—that by much, frequent, and careful writing one may attain unto a simple and direct style. Franklin may be said to be the first American newspaper man, for he was the first American writer to use simple English in brief sentences addressed directly to the public. He may be called the founder of the brief, sententious style in journalism.

The general welfare.

In 1729 he published A Modest Inquiry into the Nature and Necessity of a Paper Currency, a small pamphlet which marks an epoch in the history of political economy. It opens with a characteristic confession: "There is no science the study of which is more useful and commendable than the knowledge of the true interest of one's country."

It would be interesting to note particularly the frequency with which he uses the phrase "the true interests of one's country," or "the general welfare of one's country."[b] In this Modest Inquiry he discusses the nature of a paper currency in a general way, as shown by a scarcity of money and a high rate of interest. That the scarcity of money in a country discourages immigration was a point of great interest to one, like Franklin, who was ever discussing the means for encouraging the increase of population. As his theory of the general welfare was based upon his interpretation of the interests of an ever-increasing and prosperous people, he laid it down as an economic principle that "a plentiful currency will encourage great numbers of laboring and handicraftsmen to come and settle in the country." He thought that "want of money in such a country as ours occasions a greater consumption of English and European goods, in proportion to the number of people, than there would otherwise be." This notion is in keeping with one of his favorite ideas, expressed by him in 1771, that "every manufacture in our country makes an opportunity for a market for productions within ourselves, and supplies so much money to the country as must otherwise be exported to pay for the manufacture of supplies here in England; it is well known and understood that wherever a manufacture is established that employs a number of hands, it raises the value of land in the neighboring country all around. It seems, therefore, the interest of our farmers and owners of land to encourage our own manufactures in preference to foreign ones."

In other words, his idea of a nation was like his idea of the individual—that the nation, like the individual, should be self-supporting. This conformed to the

[a] The General Magazine and Historical Chronicle for all the British Plantations in America. It was a monthly, and was published from February to July.

[b] For the history of the phrase see my Constitutional History of the United States, Vol. III, Bk. VI, Ch. VI.

education which he had received in his New England home and was characteristic of the New England idea in government.

America must be industrially free.

It is interesting to trace as early as 1729, in his writings, this plain intimation of the means for the true prosperity of America that traders, artificers, laborers, and manufacturers should produce the goods in America needed for America. It is in this paper on currency that he lays down the fundamental notion in economics that labor is the measure and creator of wealth:

For many ages [he says] those parts of the world which are engaged in commerce, having fixed upon gold and silver as the chief and most proper materials for this medium [that is, money properly called a medium of exchange]; they being in themselves valuable metals for their fineness, beauty, and scarcity. By these, particularly by silver, it has been usual to value all things else. But as silver itself is of no certain permanent value, being worth more or less according to its scarcity or plenty, therefore it seems requisite to fix upon something else, more proper to be made a measure of values, and this I take to be labor.[a]

By labor may the value of silver be measured as well as other things. As, suppose one man employed to raise corn, while another is digging and refining silver; at the year's end, or at any other period of time, the complete produce of corn, and that of silver, are the natural price of each other; and if one be 20 bushels, and the other 20 ounces, then an ounce of that silver is worth the labor of raising a bushel of that corn. * * *

Thus the riches of a country are to be valued by the quantity of labor its inhabitants are able to purchase, and not by the quantity of silver and gold they possess, which will purchase more or less labor, and therefore is more or less valuable, as is said before, according to its scarcity or plenty.

Labor is the measure of wealth.

This doctrine of labor, stated in 1729, anticipated the Wealth of Nations forty-six years, and justly may lay claim to priority in statement of the foundation of the industrial basis of modern political economy.[b] He applied his doctrine as it affected the currency by affirming that "money as bullion, or as land, is valuable by so much labor as it costs to procure that bullion or land; money, as a currency, has an additional value by so much time and labor as it saves in the exchange of commodities." Mindful of his rule for humility and modesty, Franklin concluded the essay by saying:

As this essay is wrote and published in haste, and the subject in itself intricate, I hope I shall be censured with candor if, for want of time carefully to revise what I have written, in some places I should appear to have expressed myself too obscurely, and in others am liable to objections I did not foresee. I sincerely desire to be acquainted with the truth, and on that account shall think myself obliged to anyone who will take the pains to show me or the public where I am mistaken in my conclusions.

The effect of this pamphlet in Pennsylvania was the issue of a paper currency.

His fondness for dialogues had led him, in his scheme for an English school, to prescribe their composition. Throughout his writings occur many dialogues on a great variety of subjects.

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[a] This idea is elaborated in The Wealth of Nations, Book I. See also J. S. Mill's Principles of Political Economy, Book I.

[b] Since this was written there has appeared a monograph by W. A. Wetzel, A. M., in the Johns Hopkins University Studies, entitled Benjamin Franklin as an Economist, in which the author, in a chapter on Value, denies the correctness of the statement that Franklin can be called "the father of the labor theory of value." He says:

It is true that as early as 1729, in his first paper of an economic character (i. e., The Nature and Necessity of a Paper Currency, Bigelow's edition of Franklin Works, vol. 1, p. 371), Franklin states this theory very fully. But the close resemblance between his language and that of Sir William Petty, who preceded him by more than fifty years, leads one to conclude that Franklin, who lived in London in 1724, must have known of Petty's work (p. 31).

Mr. Wetzel reprints from Petty's Essay on Taxes and Contributions, which appeared in 1662, and from Franklin's paper of 1729, and remarks: "The same commodities are compared in the same ratios, and the same Latin phrase used at the end."

Action! Action! Action!

He was fond of the theater. Action, expression, relieved the tedium of mere writing. Had he possessed the leisure he might have written a play. The use of dialogue in composition is out of fashion in our time, but was much in vogue in the eighteenth century. Franklin was a master of it. Many will remember the dialogues in the old school readers. They will recall "speaking day," when these dialogues were mouthed from the stage, and some wholesome lesson in politics or morality was given to the audience. Some of the most celebrated found in the old readers were written by Franklin himself, as the famous dialogue between him and the gout.

His utilitarian ideas appear throughout his writings. To the Pennsylvania Gazette of October 30, 1735, he contributed a paper on the usefulness of mathematics. His own course in arithmetic and geometry, it will be remembered, was brief. His paper on the usefulness of mathematics was based upon their commercial value. It was because "no business, commerce, trade, or employment whatsoever, even from the merchant to the shopkeeper, etc., can be managed and carried on without the assistance of numbers; for by these the trader commutes the value of all sorts of goods that he dealeth in, does his business with ease and certainty, and informs himself how matters stand at any time with respect to men, money, or merchandise, to profit and loss, whether he goes forward or backward, grows richer or poorer."

Explanation of his influence.

We must not forget that in 1735 there were no common schools or common facilities for the education of the poor, and that the occasion for self-education was greater then than now. Illiteracy was prevalent, and the means for acquiring a knowledge of the rudiments of an English education depended almost wholly upon the activity of the individual. Now, when public education is a part of modern life, Franklin's appeal for self-education loses much of its original force. His vast influence in America is explicable when we reflect that he spoke to a people who were lacking the very facilities which now are within reach of any enterprising person. Franklin was an American educator before there were American schools.

In his paper on mathematics he made no argument for the study of the subject as a science. Study it for its utility in mechanics, in navigation, in surveying, in engineering, and in the computation of time and its divisions; as a method of strengthening the mind, of securing the capacity for exact reasoning, of discerning truth from falsehood. He concludes his argument with a quotation from Plato characteristic of his own notions of life: "Dear friend, you see, then, that mathematics are necessary, because, by the exactness of the method, we get a habit of using our minds to the best advantage."

Idea of "the general welfare."

At thirty years of age he wrote his first paper on government. It is of interest because of his subsequent influence in international matters, and in the formation of the constitutions of Pennsylvania in 1776 and 1789, and in the making of the National Constitution in 1787. His paper on government, written forty years before the first constitution of an American commonwealth was, contains the germs of all the American constitutions. Government is "created by and for the good of the whole," and "should be made liable to the inspection and animadversion of the whole." "Sovereignty is in the people;" and he concludes with the rather mischievous maxim, "Vox dei est populi vox." He adds this qualification, that "this maxim is universally true while the people remain in their proper sphere, unbiased by faction, undeluded by the tricks of designing men." Later this same idea was incorporated in his final speech to the convention of 1787.

It is in this early paper that he anticipated a thought expressed forty years later in the Declaration of Independence, that "the civil privileges of the Ameri-

can people are not a gift bestowed upon us by other men, but a right that belongs to us by the laws of God and nature." [a]

He based his idea of government upon his interpretation of the public good, and declared the foundation of government to be the common rights of mankind. It is interesting as an intimation of his subsequent career in public affairs.

The Way to Wealth.

Of all his writings the one which has been most widely read is his Way to Wealth, [b] written in 1736, the great number of editions indicating its widespread influence. Known also under the titles of La Science du Bonhomme Richard, and Father Abraham's Speech, it is the best known of American writings. Mr. Paul Leicester Ford, a distinguished worker in the vineyard of Franklinian literature, tells us that "Seventy editions of it have been printed in English, 56 in French, 11 in German, and 9 in Italian. It has been translated into Spanish, Danish, Swedish, Welsh, Polish, Gaelic, Russian, Bohemian, Dutch, Catalan, Chinese, Modern Greek, and Phonetic writing. It has been printed at least 400 times, and is to-day as popular as ever." The paper, addressed to the "Courteous Reader," assumes to be taken from the proverbs of an old almanac entitled "Poor Richard Improved." Probably this paper reflects Franklin's mind in its everyday economy more perfectly than any other he wrote. It is an epitome of homely experiences, told in the easy style of which he was master, and addressed to the public, whom he always had in mind. It is a series of maxims, skillfully strung togetner, illustrative of his favorite notion that industry, economy, and virtue are the means for attaining perfection in this life. Portions of the paper have been printed in reading books so frequently that it has become one of the best known of American writings. It is perhaps safe to say that in this single article Franklin contributed to the education of his countrymen in practical economy as no other American has ever done.

Between 1736 and 1750 he contributed frequently to the newspapers, ever writing on some useful project. It was in 1749 that he made application of his utilitarian doctrines. He conceived of the identity of electricity and lightning, and began that train of thought which ended three years later in his famous experiment with the kite. This experiment led to his invention of the lightning rod. He never protected his discoveries by patent, believing that as he had received much from mankind he himself should contribute as freely as possible to the general welfare. During the next twelve years following 1750 he won his fame as an electrician. He obtained his knowledge by simple experimentation. He was a born scientist. His own life led him to emphasize the value of experiment in education, although in his Proposals for the Education of Youth in Pennsylvania he does not prescribe laboratory work, as at first thought one might have expected him to do.

His purpose utilitarian.

He made no effort to defend or perpetuate his own fame as a scientist, but left it to the considerate judgment of mankind. This was characteristic of all his work. He judged himself as he judged others—by the usefulness of his life to mankind; he strictly applied his utilitarian doctrines to himself. It is to be noticed in his numerous letters to Peter Collinson and others concerning his electrical experiments that his ideas

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[a] Compare the opening paragraph of the Declaration of Independence: "When, in the course of human events, it becomes necessary for one people to dissolve the political bands which have connected them with another, and to assume, among the powers of the earth, the separate and equal station to which the laws of nature and of nature's God entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the separation."

[b] The Sayings of Poor Richard: The Prefaces, Proverbs, and Poems of Benjamin Franklin, Collected and Edited by Paul Leicester Ford, form one of the "Knickerbocker Nugget" Series. G. P. Putnam's Sons.

follow the experiment rather than anticipate it. He kept close to phenomena and showed no haste to experiment merely for the sake of experiment. All his tests were for utilitarian purposes.

In his Advice to a Young Tradesman, written in 1748, he applied some of the notions already expressed in his Way to Wealth, and signed himself "An Old Tradesman." His frequent papers upon money-getting have caused some critics to maintain that his whole scheme was a penny-wise pound-foolish policy and that his sole purpose in life was to accumulate wealth. It seems to me, on the contrary, that his life illustrates the opposite policy, for, having accumulated a fortune before he was 50 years old, a very unusual thing to do in the American colonies, he was enabled to utilize his time for the benefit of the public. His scheme of life was to win wealth in order to obtain time for self-improvement. He would have every man accumulate sufficient wealth to enable him to make innumerable experiments in virtue and natural philosophy, by means of which the general welfare might be promoted.

How reforms should begin.

This is illustrated in a letter to George Whitefield, written July 6, 1749:

I am glad to hear that you have frequent opportunities of preaching among the great. If you can gain them to a good and exemplary life, wonderful changes will follow in the manner of the lower ranks, for ad exemplum regis, etc. On this principle Confucius, the famous Eastern reformer, proceeded. When he saw his country sunk in vice, and wickedness of all kinds triumphant, he applied himself first to the grandees, and having, by his doctrine, won them to the cause of virtue, the commons followed in multitudes. The mode has a wonderful influence on mankind, and there are numbers who perhaps fear less the being in hell than out of the fashion. Our most western reformations began with the ignorant mob; and when numbers of them were gained, interest and party views drew in the wise and great. Where both methods can be used, the reformations are likely to be more speedy. O, that some method could be found to make them lasting! He who discovers that will, in my opinion, deserve more, ten thousand times, than the inventor of the longitude.

The secret of life.

He was a believer in the force of example, and his belief was based upon his own experience in self-education. Probably no American has illustrated the thought, ad exemplum regis, as he has. His life has been the pattern for thousands, and in innumerable stories, essays, sermons, and speeches he has been held up as an example for American youth. In his own scheme for the education of children he emphasized the value of the study of history and biography, because of the examples which these set before the mind. Posterity has treated him gently. No better illustration of his influence can be cited than Auerbach's Villa on the Rhine, in which story Franklin is the happy example for others to follow. The Franklin of Thackeray's Virginians is a caricature.

In a letter to his mother, written in his forty-third year, he says of himself:

For my own part, at present, I pass my time agreeably enough: I enjoy through mercy a tolerable share of health. I read a great deal, write a little, do a little business for myself, and now and then for others, retire when I can, and go into company when I please. So the years roll on, and the last will come, when I would rather have it said, "He lived usefully" than "He died rich."

At the time of his founding the University of Pennsylvania he had occasion to write to Dr. Samuel Johnson, first president of King's College, now Columbia University, to whom the provostship of the new university had been offered.

I think with you that nothing is of more importance for the public weal than to form and train up youth in wisdom and virtue. Wise and good men are, in my opinion, the strength of a State; much more so than riches or arms, which, under the management of ignorance and wickedness, often draw on destruction, instead of providing for the safety of the people. And though the culture bestowed on many should be successful only with a few, yet the influence of

those few and the service in their power may be very great. Even a single woman, that was wise, by her wisdom saved the city.

I think also that general virtue is more probably to be expected and obtained from the education of youth than from the exhortation of adult persons; bad habits and vices of the mind being, like diseases of the body, more easily prevented than cured.

The teacher is "called."

I think, moreover, that talents for the education of youth are the gift of God, and that he on whom they are bestowed, whenever a way is opened for the use of them, is as strongly "called" as if he heard a voice from heaven; nothing more surely pointing out duty in a public service than ability and opportunity of performing it.

Dr. Johnson declined the provostship, and Dr. William Smith was chosen.

The University was not associated with any particular church, but it sought to be at peace with all the religious sects.[a]

Franklin had to contend with the prejudices of his times. The history of the University of Pennsylvania shows the effect of this early separation of academic and ecclesiastical interests. The university never had a theological school; its faculties, "as strongly 'called' as if they heard a voice from heaven," have been gathered from all sects, and the whole character of the institution has been free from ecclesiastical bias. Without doubt, this condition explains the lack in that university of that Western influence so characteristic of Harvard, Yale, and Princeton. It is true that the university, having established the first medical school in America, was the parent of all the medical schools of the West, but it was the young clergymen and schoolmasters freshly graduated from Harvard, Princeton, and Yale who molded public opinion in the Northwest Territory, and the graduates of the University of Virginia who laid the foundations of schools in the region south of the Ohio. The New England immigrants imparted to the States west of the original 13 much of their original zeal for education.[b]

Influence of Harvard and Yale.

But Franklin was wise in his generation and his far-sightedness is now evident. Ecclesiasticism has given place to nonsectarianism in the great American universities, but we must not forget that during the half century which followed the American Revolution, when the West was receiving its immigrants from the older States, the vast ecclesiastical influence of New England carried with it the influence of Harvard and Yale. If Franklin had been a devout churchman and had identified the University of Pennsylvania with a powerful ecclesiastical body, doubtless the influence of that university throughout the West would have been greater than it was during the first half of the nineteenth century. Now, however, the world has caught up with Franklin's idea, and great universities have

[a] American education [says Robert Ellis Thompson] was begun by the churches, and the higher institutions of learning nearly all originated with the ecclesiastical bodies, and most of them are still under their control. The University of Pennsylvania, through the influence of Franklin, was perhaps the first to arise without formal connection with the churches. The colleges and academies of the New England States and of districts supplied from New England were chiefly modeled after Harvard, and nearly all drew their teachers from these mother institutions and their daughters. Those of the Middle and many of the Western States may commonly be traced to the educational efforts of the Presbyterian clergy from the north of Ireland and from Scotland. The Puritan and Presbyterian congregations have been the chief agencies in our higher educational system, and in both cases the interest and the mode was ecclesiastical. Religion, it would appear, was the only force at work in American society which at that time was strong enough to overcome the American passion for money-making to insist on the excellence of a liberal education, and thus to cherish a love of learning and of science until it grew strong enough to stand alone. Only in our own days have institutions of the same character been endowed in a few places by the State government.—(*Elements of Political Economy*, p. 372.)

[b] The Ohio land companies (1783-1800) were directed by men who favored a system of education at public expense and laid the foundation of the public-school systems of the West. (See Jay A. Barrett's Evolution of the Ordinance of 1787, pp. 11, 64; Constitution of Ohio, 1802, Art. VIII., sec. 27, and the enabling act for Ohio, April 30, 1802, sec. 6.)

been established in later years as free from ecclesiastical association as was the University of Pennsylvania in 1740–1749. It would be an interesting subject, which it is hoped some one may be pleased to pursue, to trace the influence of the church upon the educational institutions of America, and to show the causes which have led at last to the foundation of institutions of learning upon a nonsectarian basis. It is interesting, indeed, that the first institution so founded was Girard College, a school which in most of its provisions applies Franklin's ideas in education.

Franklin's letter to Dr. Johnson is of particular interest in the history of education. It went far to correct a notion, prevalent in the eighteenth century, and not wholly dead yet, that talents for the education of youth are not a gift of God. It must have been a strange doctrine to puritan ears that a teacher was "as strongly 'called' as if he had heard a voice from heaven."

Population in America.

In his Observations Concerning the Increase of Mankind and the Peopling of Countries, written in 1751, Franklin attempted to solve another problem in economics. He was the first to point out that population increases more rapidly in America than in Europe, and that the increase was due to the ease and convenience of supporting a family in America, incident to the demand for labor and the abundance and cheapness of land. The population of America must "at least be doubled every twenty years," but notwithstanding this increase, "so vast is the territory of North America that it will require many ages to settle it fully; and, till it is fully settled, labor will never be cheap here, where no man continues long a laborer for others, but gets a plantation of his own; no man continues long a journeyman to a trade, but goes among those new settlers and sets up for himself."

America an English market.

In proportion to the increase of the population of the colonies there had been an extraordinary demand for British manufactures, making, said Franklin, a "glorious market wholly in the power of Britain, in which foreigners can not interfere, which will increase in a short time even beyond her power of supplying, though her whole trade should be to her colonies; therefore Britain should not too much restrain manufactures in her colonies."

This good advice was wholly lost, though it was given twenty-five years before the Declaration of Independence. It is in these observations that Franklin applied his ideas of labor to slavery:

> It is an ill-grounded opinion that by the labor of slaves America may possibly vie in cheapness of manufactures with Britain. The labor of slaves can never be so cheap here as the labor of workingmen is in Britain. * * * Why, then, will Americans purchase slaves? Because slaves may be kept as long as a man pleases or has occasion for their labor, while hired men are continually leaving their masters (often in the midst of his business) and setting up for themselves.

This was his first discussion of slavery in America, to which subject he gave earnest attention for the remainder of his life, ever advocating abolition. The principal idea of the paper was the future of the English race. He thought that were earth "emptied of other inhabitants it might in a few ages be replenished from one nation only, as, for instance, with Englishmen." He then entered upon one of his favorite diversions, namely, computing the population of North America:

> Thus there are supposed to be now upward of 1,000,000 English souls in North America (though it is thought scarce 80,000 have been brought over sea), and yet perhaps there is not one the fewer in Britain, but rather many more, on account of the employment the colonies afford to the manufacturers at home. This million doubling, suppose but once in twenty-five years, will, in another century, be more than the people of England, and the greatest number of Englishmen will be on this side of the water.

Franklin and Malthus.

This tract suggested the celebrated Essay on Population by Malthus.[a] The sentence "this million doubling, suppose but once in twenty-five years, will, in another century, be more than the people of England," seems to have suggested to Malthus that population is destined to outrun the means of subsistence as an arithmetical ratio falls behind a geometrical. Malthus published his essay in 1820. William Godwin wrote a reply to Malthus, having first attempted to break down Franklin's statement:[b]

> Dr. Franklin [Godwin says] is in this case particularly the object of our attention, because he was the first man who started the idea of the people of America being multiplied by procreation so as to double every twenty-five years. Dr. Franklin, born in Boston, was eminently an American patriot, and the paper from which these extracts are taken was expressly written to exalt the importance and glory of his country.

Franklin may thus be regarded as the first to call attention in the economic world to the ratio between the increase of population and the means of its subsistence. Political economists have ever since been engaged in the effort to determine this ratio with accuracy.

That Franklin should have been the first to formulate the doctrine that labor is the wealth-producer, thus anticipating Adam Smith, and should have first suggested the law of the increase of population, anticipating Malthus, places him among the great economists of the world.

Classics vs. modern languages.

He was not wholly in sympathy with all of Dr. Smith's ideas in education. They were far in advance of the prevailing sentiment of the times and are substantially embodied in the four years' course prevailing at present. The University of Pennsylvania was the first American institution to adopt the four years' curriculum common now throughout the country. Much has been written of Franklin's relations to Dr. Smith, and there is a diversity of sentiment concerning them. It seems by the evidence that Dr. Smith leaned to the classical studies while Franklin preferred the English branches. This may possibly be explained by the difference in the education of the two men. Franklin would have all young men trained as he had trained himself; Dr. Smith, a fine classical scholar, would place Latin and Greek above the English language in the course. To these fundamental differences between the two men was added the disputes growing out of the relations of the academy and the college to the Commonwealth of Pennsylvania, and the contentions following the war of the Revolution. The college narrowly escaped destruction amidst these serious commotions.

In 1754 Franklin drew a plan of union for the colonies known as the Albany plan. It illustrates his love of compromise. The plan, as first drawn, is called Short Hints towards a Scheme for Uniting the Northern Colonies. While the commissioners from the colonies who assembled at Albany met for the ostensible purpose of discussing Indian affairs, the subject of colonial union was the uppermost thought in Franklin's mind. The union he proposed was to be based on the representative idea. A governor-general was to be appointed by the king, having a salary from the Crown and a veto on the acts of the grand council, the latter to be chosen by the colonial legislature and to consist of one member from each of the smaller colonies and two or more from each of the larger. It was an effort to establish for the colonies a government similar to that now existing in Canada, and was in its nature a federal act. Franklin says of the plan: "The assemblies all

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[a] Mr. Wetzel thinks that it is claiming too much to say that "Franklin's work suggested Malthus's Essay on Population," but concludes that "one is led to believe that the influence of Franklin may be seen in Malthus's preventive check to the increase of population." (Pp. 28-29 of Wetzel's Benjamin Franklin as an Economist.)

[b] See Bigelow, Vol. II, 232, note.

thought there was too much prerogative, and in England it was thought to have too much of the democratic, and therefore the plan was not adopted.[a]

"Electrocution."

In 1755 his experiments in killing fowls by electricity led him to record: "Too great a charge might indeed kill a man. * * * It would certainly, as you observe, be the easiest of all deaths," thus anticipating modern electrocution.

His utilitarian philosophy was illustrated again in a letter to George Whitefield, July 2, 1756:

Life, like a dramatic piece, should not only be conducted with regularity, but, methinks, it should finish handsomely. Being now in the last act, I begin to cast about for something fit to end with; or, if mine be properly compared to an epigram, as some of its lines are but barely tolerable, I am very desirous of concluding with a bright point. In such an enterprise I could spend the remainder of life with pleasure, and I firmly believe God would bless us with success if we undertook it with a sincere regard to His honor, the service of our gracious king, and (which is the same thing) the public good.

In this letter he thanked Whitefield for his "generous benefactions to the German schools. They go on pretty well," he wrote, "and will do better when Mr. Smith,[b] who has at present the principal charge of them, shall learn to mind party writing and party politics less and his proper business more, which I hope time will bring about.

Franklin and Lord Kames.

In 1760 in a letter to Lord Kames, dated May 3, he acknowledged the receipt of the Principles of Equity, "which," says Franklin, "will be of service to the colony judges, as few of them have been bred to the law," and he therefore sent his copy to a particular friend in Philadelphia, one of the judges of the supreme court in Pennsylvania. It is in this letter that he outlines "a little work for the benefit of youth, to be called The Art of Virtue."

Most people have naturally *some* virtues, but none have naturally *all* the virtues. To *acquire* those that are wanting, and secure what we acquire, as well as those we have naturally, is * * * as properly an art as painting, navigation, or architecture. If a man would become a painter, navigator, or architect, it is not enough that he is *advised* to be one, that he is *convinced* by the arguments of his adviser, that it would be for his advantage to be one, and that he resolves to be one, but he must also be taught the principles of the art, be shown all the methods of working, and how to acquire the habits of using properly all the instruments; and thus regularly and gradually he arrives, by practice, at some perfection in the art. If he does not proceed thus, he is apt to meet with difficulties that discourage him, and make him drop the pursuit.

He would have youth become virtuous as he would have them become "tolerable English writers," by practice, and the method is exploited in his writings again and again.

Canada and the United States.

His ideas concerning the future of America were optimistic, of great moment, and deserve attention. He firmly believed that Canada should share the fate of the thirteen colonies and form with them a united America. This notion was outlined in a pamphlet entitled, The Interest of Great Britain with regard to our Colonies and the Acquisition of Canada and Guadaloupe, written in 1760. It seems strange to us that any English statesman should have considered Guadaloupe more valuable to the British Empire than Canada. Franklin prevailed, however, and Canada was

[a] For an account of this and other plans of colonial union, see my Constitutional History of the United States, Vol. I, Book I, Ch. VI.

[b] The ill feeling between Smith and Franklin already referred to was intensified by the heat of local politics, but it seems that the contention between them gradually ceased, and so completely that Dr. Smith accepted the invitation to pronounce the eulogy upon Franklin at the time of his death.

retained. Had his views prevailed at the time of the treaty of peace in 1783, Canada would now be a part of the United States.

Franklin and Hume.

In the same year, September 27, addressing David Hume from Coventry, he says, referring to a pamphlet on the constitution and government of Pennsylvania long attributed to Franklin, but probably only brought out by his patronage and not written by him:

I am not a little pleased to hear of your change of sentiment in some particulars relating to America, because I think it of importance to our general welfare that the people of this nation should have right notions of us, and I know no one that has it more in his power to rectify their notions than Mr. Hume. I have lately read with great pleasure, as I do everything of yours, the excellent essay on the Jealousy of Commerce.[a] I think it can not but have a good effect in prompting a certain interest, too little thought of by selfish man, and scarcely ever mentioned, so that we hardly have a name for it: I mean the *interest of humanity* or common good of mankind. But I hope, particularly from that essay, an abatement of the jealousy that reigns here of the commerce of the colonies, at least so far as such abatement may be reasonable.

This is one of the earliest, and perhaps the first, use of the phrase "the general welfare" as relating to America, a phrase destined to receive a more extended meaning as time passed, and at last become fixed in the public mind and be incorporated in the preamble of the Constitution of the United States.[b] Probably no philosopher of the eighteenth century contributed so much to the definition of the "general welfare" as David Hume. To his writings may be traced many of the causes both of the American and of the French revolutions, and Franklin's relations to him, their correspondence, and the influence which each had on the other are of great interest. If Hume precipitated the French revolution, Franklin may be said to have hastened the independence of the United States. Franklin educated the colonies to become independent.

In November, 1761, he wrote his thanks to Lord Kames for a copy of his Introduction to the Art of Thinking, and inquired after the Elements of Criticism, then in preparation, adding:

I promise myself no small satisfaction in perusing that work also, when it shall appear. By the first, you sow thick in the young mind the seeds of good sense concerning moral conduct, which, as they grow and are transplanted into life, must greatly adorn the character and promote the happiness of the person. Permit me to say that I think I never saw more solid, useful matter contained in so small a compass, and yet the method and expression so clear that the brevity occasions no obscurity. In the other you will, by alluring youth to the practice of learning, strengthen their judgment, improve and enlarge their understanding, and increase their abilities of being useful.

To produce the number of valuable men necessary in a nation for its prosperity there is much more hope from schemes of *early institution* than from *reformation*. And, as the power of a single man to do national service, in particular situations of influence, is often immensely great, a writer can hardly conceive the good he may be doing when engaged in works of this kind. I can not, therefore, but wish you would publish it as soon as your other important employments will permit you to give it the finishing hand.

With these sentiments you will not doubt my being serious in the intention of finishing my Art of Virtue. It is not a mere ideal work. I planned it first in 1732. I have from time to time made, and caused to be made, experiments of the method with success. The materials have been growing ever since. The form only is now to be given, in which I purpose employing my first leisure after my return to my *other* country.

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[a] Essay on The Jealousy of Trade, No. XXVIII, in Hume's Collected Works; Nos. XXV, XXVI, XXVII, XXIX, XXX, XXXI, on Money, Interest, Trade, Taxes, and Public Credit, are interesting in relation to Franklin's notions on those subjects.

[b] For the history of the phrase, "the general welfare," as used in the Constitution of the United States, see Thorpe's Constitutional History of the United States, 1765–1895. Vol. III, pp. 467–470.

Evidently he considered his proposed Art of Virtue as the magnum opus of his life. Whenever he received a work from a distinguished author he was quite likely to refer to this proposed work of his not as an ideal or theoretical thing, but as one of great practical utility. Somewhat conscious of his own infirmities, he thought he might atone for them by at least suggesting to others how they might improve in the art.

Franklin and Hume.

On the 10th of May, 1762, Hume, writing to Franklin from Edinburgh on a device for protecting houses from stroke by lightning, remarked, "I thought it proper to convey to you these two ideas of so ingenious a man, that you might adopt them if they appear to you well founded. I am very sorry that you intend soon to leave us. I am sure America has sent us many good things—gold, silver, sugar, tobacco, indigo, etc.—but you are the first philosopher, and indeed the first great man of letters for whom we are beholden to her." This letter is evidence of the sympathy between Hume and Franklin,[a] who in reply, nine days later, regretted leaving a country in which he had received so much friendship and friends whose conversation had been so agreeable and so improving to him.

Public events soon withdrew Franklin from his scientific studies and he was wholly occupied with the measures of Parliament. In a letter to Charles Thompson, later secretary to Congress, July 11, 1765, he declared:

> Depend upon it, my good neighbor, I took every step in my power to prevent the passing of the stamp act. Nobody could be more concerned and interested than myself to oppose it sincerely and heartily. But the tide was too strong against us. The nation was provoked by American claims of independence,[b] and all parties joined in resolving by this act to settle the point. We might as well have hindered the sun's setting. That we could not do. But since it is down, my friend—and it may be long before it rises again—let us make as good a night of it as we can. We may still light candles. Frugality and industry will go a great way toward indemnifying us. Idleness and pride tax with a heavier hand than kings and parliaments. If we can get rid of the former, we may easily get rid of the latter.

It was a favorite idea with him that many ills incident to bad government are less than the ills which people voluntarily suffer from idleness and pride. He was constantly applying the formula of his moral algebra to the solution of some public question.

Franklin examined before the House of Commons.

On the 3d of February, 1766, he was examined at the bar of the House of Commons. That long, severe, and exhaustive test by friends and enemies remains the clearest account which we have of the relations between England and the American colonies in the eighteenth century. His practical knowledge of America, due largely to his experience as deputy postmaster of the colonies, and his wise observations made during his official journeys through them equipped him to be the advocate of the rights of his countrymen. For the first time the British Parliament heard a truthful account of America. I can only refer to this examination as an illustration of all that I have said of his method of conveying knowledge. It was the most important Socratic dialogue in which Franklin ever engaged.

He carefully distinguished between the right of the colonial assemblies to levy local or internal taxes and the right of Parliament to levy an external tax or duty, contending that there was not a single article imported into the northern colonies

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[a] Perhaps no better summary of Franklin can be made than Knight's remark about Hume: "Even in the sentimental days of boyhood his estimates of men and things were based, with scarcely an exception, upon utility. He was essentially matter-of-fact from the first, and he remained unideal to the last. An acute observer, one of the keenest and cleverest of critics, he was never known to have been carried away by a fervor for what was above and beyond himself." (Knight's Life of Hume, p. 8.)

[b] I. e., independence of local taxation by Parliament.

which they could either not do without or make themselves: that with industry and good management they could very well supply themselves with all they wanted, and that it would not take a long time to establish manufactures among them. It was his opinion that before their old clothes were worn out they would have new ones of their own making. The whole examination shows that the Americans were prepared to be self-supporting, and it is interesting as a formulation of the principal points afterwards used by Adam Smith in his Wealth of Nations in illustration of his economic theories respecting new countries.

Meanwhile the influence of Hume, Voltaire, Turgot, Quesnay, and others, who in their philosophy had worked out a scheme for the regeneration of mankind, was rapidly precipitating the revolutions of 1776 in America and of 1789 in France. It will always be a matter of speculation to what extent Hume, Smith, and Franklin contributed to hastening these stupendous changes.

The physiocrats.

Among the brilliant thinkers of the eighteenth century were a number of men known as the physiocrats, from the general title given in 1768 to the first volume of Quesnay's collected works, published by his disciple, Dupont de Nemours. The physiocrats sought a universal exposition of the wants of man and the satisfaction of these wants in the national constitution and order of human society. They held that government should be according to the nature of things. The world is governed by immutable physical and moral laws; it is for man, an intelligent and free being, to discover them and to obey them or violate them, for his own good or evil. The end assigned to the exercise of his intellectual and physical powers is the appropriation of matter for the satisfaction of his wants and the improvement of his condition, and the general accomplishment of this task conformably to the idea of the just, which is the correlative of the idea of the useful. Man forms an idea of justice and utility, both individual and social, through the notions of duty and right, which his nature reveals to him, and which teach him that it is contrary to his good and the general welfare to seek his own advantage in a damage to others.

This idea entering the minds of individuals and peoples in proportion to the increase of enlightenment and the advance of civilization, they naturally produce feelings of fraternity among men and peace among peoples. The chief manifestations of justice are liberty and property; that is to say, the right of each person to do that which shall in no way concern the general welfare and to use at his pleasure the things which he possesses, the acquirement of which has been conformable to the nature of things and to the general utility, since without liberty and property there would have been no civilization. Liberty and property spring, then, from the nature of man and are rights so essential that laws or agreements among men should be limited to recognizing them, to formulating them, and to saving them. Governments have no mission other than to protect these two rights, which, when things are correctly understood, embrace all the material and moral wants of society.

To say that liberty and property are essential rights is to say that they are in harmony with the general interest of the species; that is, with them land is more fertile, and the industry of man in its manifestations more productive, and the development of all his aptitudes—moral, intellectual, scientific, and artistic—swifter. They are in the field of the good and beautiful and just and useful: that is to say, through them man best gathers the fruit of his own efforts and is not at least the victim of the arbitrary laws of his fellow-men.

Franklin and the physiocrats.

As the physiocrats were utilitarians, Franklin, whose visit to France occurred at the time when physiocracy was in fashion, became a disciple of Quesnay, whose notions that "the happiness of the majority depends much less on the mechanism of governmental forms than on the development of human industry, and that it is impossible to discuss

politics rationally without having previously acquired a knowledge of the economy of society," were exactly to Franklin's mind. Franklin's works, both before and after 1768, prove this. Adam Smith and the physiocrats combated the mercantile theory, which made wealth consist only in the precious metals and which exaggerated the advantages of foreign commerce. They combated also the then ruling infatuation for the manufacturing system. Franklin based his ideas of economy on agriculture, for he knew America, and America was then agricultural. The theory of the physiocrats that agriculture is the true basis of all government therefore appealed to him. In his letter of July 28, 1768, to Dupont he acknowledged "the most acceptable gift" of his physiocratie (Origine et progrès d'une science nouvelle)—

Franklin and Dupont de Nemours.

Which [he adds] I have read with great pleasure, and received from it a great deal of instruction. There is so much freedom from local and national prejudices and partialities, so much benevolence to mankind in general, so much goodness mixed with the wisdom in the principles of your new philosophy that I am perfectly charmed with them and wish I could have stayed in France for some time to have studied in your school, that I might, by conversing with its founders, have made myself quite a master of that philosophy. I had, before I went into your country, seen some letters of yours to Dr. Templeman that gave me a high opinion of the doctrines you are engaged in cultivating and of your personal talents and abilities, which made me greatly desirous of seeing you. Since I had not that good fortune, the next best thing is that which you are so good as to offer me, your correspondence, which I shall ever value and endeavor to cultivate with all the diligence I am capable of. I am sorry to find that that wisdom which sees the welfare of the parts in the prosperity of the whole seems yet not to be known in this country [England]. * * * It is from your philosophy only that the maxims of the contrary and more happy conduct are to be drawn, which I therefore sincerely wish may grow and increase until it becomes the governing philosophy of the human species, as it must be that of superior beings in better worlds. I take the liberty of sending you a little fragment that is somewhat tinctured by it, which on that account may be acceptable. Be so good as to present my sincere respects to that venerable apostle, Dr. Quesnay, and to the illustrious Ami des Hommes (of whose civilities to me at Passy I retain a grateful remembrance).

Dupont found it convenient during the French Revolution to emigrate to the United States. On his return to France he assisted Livingston and Monroe in negotiating the purchase of Louisiana. Later, at Jefferson's request, he prepared a scheme of national education for America, which was entitled "Sur l'éducation nationale dans les États Unis," was presented to Congress and published in 1812.

The influence of the physiocrats on Franklin is discernible in his speeches in the Constitutional Convention of 1787, particularly in the last to the delegates, which was read by Wilson just before the signing of the Constitution.[a]

Franklin's method of reaching a conclusion. Pros and cons.

Franklin's method of arriving at conclusions is outlined in his letter to Dr. Priestley, September 19, 1772. In order to get over the uncertainty and perplexity incident to making up his mind on a subject, he pursued a unique course:

My way is, to divide half a sheet of paper by a line into two columns; writing over the one *pro* and over the other *con;* then during three or four days' consideration, I put down under the different heads short hints of the different motives, that at different times occur to me, *for* or *against* the measure. When I have

[a] For the doctrines of the physiocrats see Quesnay's Tableau Économique, 1758; L'Ami des Hommes, 6 vols., 1755-1760; Turgot's Réflexions sur la Formation et la Destruction des Richesses. Adam Smith also has an instructive chapter on the physiocrats.

For an account of the survival of French influence in America and particularly of the work of Quesnay and Dupont and their distinguished associates in founding the Richmond Academy, and also a particular account of Dupont's treatise on national education, and the influence of that treatise at the time, see Thomas Jefferson and the University of Virginia, by Herbert B. Adams, Ph. D., United States Bureau of Education, Circular of Information No. 1, 1888, pages 21-30, 49-54. Washington, Government Printing Office, 1888.

thus got them all together in one view, I endeavor to estimate their respective weights; and, where I find two (one on each side) that seem equal, I strike them both out. If I find a reason *pro* equal to some *two* reasons *con*, I strike out the *three*. If I judge some *two* reasons *con* equal to some *three* reasons *pro*, I strike out the *five;* and thus proceeding I find at length where the *balance* lies; and if, after a day or two of further consideration, nothing new that is of importance occurs on either side, I come to a determination accordingly. And, though the weight of reasons can not be taken with the precision of algebraic quantities, yet, when each is thus considered separately and comparatively, and the whole lies before me, I think I can judge better, and am less liable to make a rash step; and in fact I have found great advantage from this kind of equation, in what may be called *moral* or *prudential algebra.*

This method of arriving at a conclusion could be suggested only by a man like Franklin, who based his judgments upon a comparison of conflicting claims and whose powers in forming conclusions were great. Who can measure how delicate is the diplomacy requisite to harmonize the conflicting powers that rage within the world of self? Throughout his plan for the education of youth he emphasizes the value of comparison as an essential element. No more curious or pertinent illustration can be found of his fondness for comparison than his prudential algebra.

How he perfected his style of composition.

His deep sympathy with mankind and his love of books made him a prolific writer, and numerous short articles, not wholly unlike his old models in the Spectator, accumulated rapidly after 1770; but it should not be imagined that these apparently easy contributions, written for the pleasure of his friends, were not the result of great labor; the existence of several revisions of the original attest the labor with which the final form was reached, and some of these copies are so freely interlined as to be almost illegible. The perfect style of many of these bagatelles has led to their introduction into school readers, and thus by a happy destiny Franklin contributed to the education of youth many articles such as, in his Plan for an English School, he advised should be read by children. These short stories are among the English classics.

One of the few references to the civil service in his writings is found in his letter to Mr. Timothy, November 3, 1772:

I am sorry you talk of leaving off your business with a view of getting some post [that is, public office]; it is so difficult a matter to obtain anything of the kind that I think to leave a good trade in hopes of an office is quitting a certainty for an uncertainty and losing substance for shadow. I have known so many here [London] dangling and soliciting years for places until they were reduced to the lowest poverty and distress that I can not but pity a man who begins to turn his thoughts that way. The proverb says: "He who has a trade has a feast of profit and honor, because he does not hold it during another man's pleasure and it affords him an honest subsistence with independence." I hope, therefore, you will alter your mind and go on with your business.

This advice about office seeking has been mostly lost upon Americans.

His respect for the trades is well known. He never forgot that he had been an apprentice, and always took lively satisfaction in describing himself as a printer.[a] His utilitarian ideas found illustration in the improvement of utensils and instruments in daily use. For instance, in his letter of April 11, 1773, to William Deane, he knows of nothing new worth communicating from London, "unless perhaps the new art of making carriage wheels, the fellowes of one piece, bent into a circle and surrounded by a hoop of iron, the whole very light and strong, there being no crossed grain in the wood, which is also a great saving of timber. The wood is first steamed in the vapor from boiling water, and then bent by a forcible machine. I have seen pieces of wood so bent of 6 inches wide and 3¼

[a] He so describes himself in his will. See p. 134.

thick into a circle of 4 feet diameter. These, for duration, can only be exceeded by your iron wheels. Pray, have you completed that ingenious invention?"

The Franklin stove.

In this letter he describes one of his own recent inventions, a smokeless stove. "I have completed my stove, in which the smoke of the coal is all turned into flame and operates as fuel in heating the room. I have used it all this winter, and find it answers even beyond my expectations. I propose to print a little description of its use and construction, and shall send you a copy." All of which he did soon after. He was the first to devise the smoke-consuming stove, the principle of which has been largely applied in the construction of railroad locomotives, in city factories, and should be much more widely used.

Doctrines of life and death.

"The doctrines of life and death, in general, are yet but little understood," he writes to M. Dubourg, and proceeds to describe a toad that long imprisoned in a stone had come to life. The curious revival of the toad led Franklin to remark on an instance of common flies preserved in a manner somewhat similar:

They had been drowned in Madeira wine, apparently about the time it was bottled in Virginia to be sent later to London. At the opening of one of the bottles at the house of a friend where I then was three drowned flies fell into the first glass that was filled. Having heard it remarked that drowned flies were capable of being revived by being placed in the rays of the sun, I proposed making an experiment with these. They were therefore exposed to the sun upon a sieve, which had been employed to strain them out of the wine. In less than three hours two of them began by degrees to recover life. They commenced by some convulsive motions of the thighs, and at length they raised themselves upon their legs, wiped their eyes with their fore feet, beat and brushed their wings with their hind feet, and soon after began to fly, finding themselves in Old England without knowing how they came thither. The third continued lifeless till sunset, when, losing all hopes of him, he was thrown away.

This experiment was not lost on Franklin.

I wish it were possible, from this instance, to invent a method of embalming drowned persons in such a manner that they may be recalled to life at any period however distant; for, having a very urgent desire to see and observe the state of America a hundred years hence, I should prefer to any ordinary death the being immersed in a cask of Madeira wine, with a few friends, until that time, to be then recalled to life by the solar warmth of my dear country. But since in all probability we live in an age too early and too near the infancy of science to hope to see such an art brought, in our time, to its perfection, I must for the present content myself with the treat, which you are so kind as to promise me, of the resurrection of a fowl or a turkey cock.

His political satires.

In 1773 appeared his "Rules for reducing a great empire to a small one, presented to a late minister" (as is supposed), Lord Hillsboro. In this unique article he illustrated his sagacity in addressing the public in order to reach the ministry. Though the paper has lost much of its point by the lapse of time, it holds its place in the front rank of political satires. It eventually accomplished the end for which it was written—the enlightenment of the British public.

His utilitarian ideas found illustration again in the square tiles which, as many Americans will remember, ornamented the fireplaces and chimneys in the olden time. Franklin thought that the fireplace gave an opportunity for moral instruction. He advised an engraver in 1773 to borrow "from the bookseller's the plates that had been used in a thin folio called Moral Virtue Delineated, for the purpose of obtaining the pictorial illustrations." The Dutch Delft ware tiles were much used in America, "which are only or chiefly Scriptural histories wretchedly scrawled. I wish to have these moral prints, which were originally taken from Horace's poetical figures, introduced on tiles, which, being about our chimneys and constantly in the eyes of children when by the fireside, might give parents an

opportunity in explaining to impress moral sentiments." These notions of education might possibly have made the subject for a chapter in his Art of Virtue.

Experimental philosophy.

He lost no opportunity to make experiments in politics, morality, and natural philosophy. An instance of the last was his experiment to determine the effect of oil in stilling the waves in a storm. He relates in a letter of November 7, 1773, to Dr. Brownrig, how in his youth he had "smiled at Pliny's account of the practice among the seamen of his time to still the waves in a storm by pouring oil into the sea," and recollecting the account, he resolved to make some experiments of the effect of oil on water when he should have opportunity. After mentioning several experiments, he records: "After this I contrived to take with me whenever I went into the country a little oil in the upper hollow joint of a bamboo cane, with which I might repeat the experiment as opportunity should afford, and I find it constantly to succeed."

One of his experiments in morality was the abridgment of the Book of Common Prayer. In 1773 he spent some time at the seat of a nobleman of questionable morals, Lord De Lespencer, and assisted him in making the abridgment, and probably the preface. Franklin wished to adapt the Book of Common Prayer to the wants of "many pious and devout persons whose age or infirmities will not suffer them to remain for hours in a cold church, especially in the winter season," and of the younger sort, who "would probably more frequently, as well as cheerfully, attend divine service if they were not detained so long at any one time. Also many well-disposed tradesmen, shopkeepers, artificers, and others, whose habitations are not remote from churches, could and would, more frequently at least, find time to attend divine service on other than Sundays if the prayers were reduced into a much narrower compass."

The preface somewhat elaborately defends the changes which had been made, but the work attracted "little notice" and "the book became waste paper." However, the whole purpose of the abridgment was in keeping with Franklin's utilitarian ideas.

He proposes articles of confederation.

On the 21st of July, 1775, he brought forward in Congress a plan for the union of the colonies, called "Articles of confederation and perpetual union." They were the first of the kind, but there is no evidence from the journals or from references to the debates at the time that his articles were referred to a committee or generally considered. It was not until nearly six years had passed that similar articles[a] were adopted by the requisite number of States. The second article is of permanent interest, as it contains the elements afterwards united in the preamble to the national Constitution: "The said united colonies hereby severally enter into a firm league of friendship with each other, binding on themselves and their posterity, for their common defense against their enemies, the safety of their persons and families, and their mutual and general welfare."[b]

The articles are more like those adoped under the title of Articles of Confederation of 1777[c] than the national Constitution of ten years later, but they suggest Franklin's ideas of government—the application of a utilitarian philosophy and the general democratic basis on which government should he founded.

He conceives the national idea.

He conceived that a nation has permanency and the power of readjusting itself to new conditions. This is the national idea. Of this idea he was the Northern exponent. He anticipated Lincoln in that he would found all civil institutions upon the essential interests of

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[a] See the text of the articles, Bigelow, Vol. V, 548.

[b] See note p. 144.

[c] In 1776 Dickinson wrote the draft of the articles which, as amended, became the Articles of Confederation of 1781.

the people. Franklin, in 1776, bore the relation to the colonies which Lincoln bore to the new nation in 1865. Each opened an era in American history. Faith in the power of the people to adjust themselves to new conditions is repeatedly illustrated in the writings of both men.

In a characteristic article entitled, "A petition of the left hand to those who have the superintendency of education," written in 1779, Franklin made a plea for the equal training of the hands. He thought that children should be taught to use either hand with facility, and that the customary preference given to the right limited not only the usefulness of the left hand, but impeded the skill of the individual in the accomplishments of life. He anticipated Froebel in his idea of the free industrial training of the child and in the even development of all the functions and organs of the body.

A diplomat by nature.

Had international law not existed before his time he would have originated a system. His practical mind was ever seeking to ameliorate the condition of mankind, as is illustrated in a letter from Passy, May 30, 1780:

All the neutral States of Europe seem at present disposed to change what had before been deemed the law of nations, to wit, that an enemy's property may be taken wherever found, and to establish a rule that free ships shall make free goods. The rule is itself so reasonable, and of a nature to be so beneficial to mankind, that I can not but wish it may become general. And I make no doubt but that the Congress will agree to it in as full an extent as France and Spain.

This doctrine, that free ships make free goods, was a favorite one with him, and is frequently mentioned by him, as on the 5th of June, 1780, in a letter to Charles W. F. Dumas:

I approve much of the principles of the confederacy of the neutral powers, and am not only for respecting the ships as the house of a friend, though containing the goods of an enemy, but I even wish, for the sake of humanity, that the law of nations may be further improved by determining that, even in time of war, all those kinds of people who are employed in procuring subsistence for the species, or in exchanging the necessaries or conveniences of life, which are for the common benefit of mankind, such as husbandmen on their lands, fishermen in their barques, and traders in unarmed vessels, shall be permitted to prosecute their several innocent and useful employments without interruption or molestation, and nothing taken from them, even when wanted by an enemy, but on paying a fair price for the same.

His criticism on the constitution of Massachusetts of 1780.

On the 15th of May, 1781, in a letter to Samuel Cooper, expressing sentiments on the adoption of the new constitution of Massachusetts,[a] he again declared his faith in the power of the people to adjust themselves to new conditions:

It gives me great pleasure to learn that your new constitution is at length settled with so great a degree of unanimity and general satisfaction. It seems to me upon the whole an excellent one, and that if there are some particulars that one might have wished a little different they are such as could not in the present state of things have been well obtained otherwise than they are, and if by experience found inconvenient, will probably be changed hereafter.

He regarded with disfavor the clause in the constitution of Massachusetts which provided for the support of the clergy by public taxation. He did not think it right to tax Friends and others, who, though not approving of the New England ecclesiastical system, were compelled to aid in its support, and he advocated that abolition of religious qualification which was effected in Massachusetts forty years later. By 1825 these restrictions had disappeared from nearly all the State constitutions. Franklin, like Jefferson, disapproved of both property and religious qualifications for the elector and advocated manhood suffrage.

[a] The constitution of 1780, the only one of the eighteenth century State constitutions now in force, was amended in 1820 so as to abolish religious qualifications.

The custom in America of planting rows of trees along our streets, which has added a touch of beauty to our towns, had his earnest approval. In a letter to Francis Hopkinson, December 24, 1782, he wrote:

I own I now wish we had two rows of them in every one of our streets. The comfortable shelter they would afford us when walking from our burning summer suns, and the greater coolness of our walls and pavements, would, I conceive, in the improved health of the inhabitants, amply compensate the loss of a house now and then by fire, if such should be the consequence. But a tree is soon felled, and, as axes are at hand in every neighborhood, may be down before the engines arrive.

Franklin a Philistine.

It should be recorded, however, that the argument now common for the planting of trees—the additional beauty of the street—was not advanced by Franklin. It probably did not occur to him. He seldom, if ever, advocated the beautiful when the useful could possibly be the basis of an argument. He was somewhat of a Philistine in his notions, and made constant repetition of the useful and beneficial, which, though they resolve his whole scheme of education into a broad system promoting the general welfare, would be strengthened if embellished with an element of the beautiful. To Franklin the cooling shade of the tree and the consequent improved health of the inhabitants were the chief reasons for planting trees along our streets.

We search in vain in his writings for a few words that might intimate an occasional appreciation of a thing that was not merely an industrial improvement or an instrument for material comfort. He was deficient in the sense of the beautiful, and throughout his plan for the training of children and in the intimations of his ideas of education scattered through his works we can gather little that encourages the study of art for art's sake. He was, however, fond of simple music and was a discriminating listener. We should not forget that the American colonists were meagerly supplied with beautiful things; that their amusements were rude, and that they had few notions of the artistic. Franklin, too, was born in New England, and the barren though substantial comforts of his New England home always satisfied his ideals of life. He knew nothing of the artistic in his own culture, and made no provision for it in the training of others. We may say, then, that in the effort of modern American education to teach the beautiful in art, music, painting, and drawing, we have an education which was not begun by Franklin. But in our industrial schools, our technical schools, our manual-training schools, and our means for teaching and acquiring skill in the applied arts, we have the consummation of his most cherished notions in education. America owes nothing in art to Franklin.

Conversations at Passy.

From Bayne's journal we have a brief but interesting account of Franklin's conversations. John Bayne, an intimate friend of Sir Samuel Romilly, visited Franklin at Passy in August, 1783. It is of this visit that he wrote in his journal: "Of all the celebrated persons whom in my life I have chanced to see, Dr. Franklin, both from his appearance and his conversation, seemed to me the most remarkable."

The conversation on American politics led Franklin to express his belief in universal suffrage. He believed that "the all of one man was as dear to him as the all of another," though he excluded from participation in the suffrage minors, servants, and others liable to undue influence. We should not forget that at this time religious and property qualifications were required in nearly all the American States. Their abolition did not come until Franklin had been dead fifty years. His love of mankind led him to advocate manhood suffrage, and on this point he was a Jeffersonian.

In one conversation he advanced a favorite notion that he inclined "to doubt of the necessity of having teachers or ministers for the express purpose of instructing

the people in their religious duties," and approved of the system among the Friends, who have no preachers, their mode of instruction encouraging all to participate in the meeting who think themselves qualified to contribute to the welfare of their neighbors.

He suggests arbitration.

He thought that the general peace of Europe might be secured if the powers would "refer all disputes between each other to some third person, or set of men, or power. Other nations, seeing the advantage of this, would gradually accede, and perhaps in one hundred and fifty or two hundred years all Europe would be included." His mind was so universal in its consideration of the wants of mankind and he was so accustomed to consider matters of international concern that he arrived at the solution of international difficulties—arbitration—generations before it was actually employed. The humane and peaceful method of arriving at a judgment in disputes between nations, such as was witnessed in the settlement of the Alabama claims, conforms with his views expressed eighty-eight years before. This anticipation of the condition of international affairs of the future suggests again that he would have contributed to the world a system of international law had none existed before his day.

His love for Boston.

Amidst the cares of public office his mind turned to the scenes of his boyhood, and there is a delightful touch of infirmity in the confession of his feelings toward his native place, expressed in a letter to Samuel Mather, written at Passy, May 12, 1784:

I long much to see again my native place, and to lay my bones there. I left it in 1723; I visited it in 1733, 1743, 1753, and 1763. In 1773 I was in England; in 1775 I had a sight of it,[a] but could not enter, it being in possession of the enemy. I did hope to have been there in 1783, but could not obtain my dismission from this employment here, and now I fear I shall never have that happiness. My best wishes, however, attend my dear country.[b] Esto perpetua! It is now blessed with an excellent constitution; may it last forever!

Few indeed are there of New England birth who do not feel with Franklin a strong desire at times to revisit their native place. His wish that the constitution of his native State might be perpetual seems in process of fulfillment, for the constitution of 1780 remains the supreme law of Massachusetts.

Contemporary criticism on Franklin's philosophy.

The estimate now placed upon his work was held by his contemporaries. On the 26th of July, 1784, the Count de Campomanes, writing from Madrid, acknowledged through Mr. Carmichael a letter from Franklin and a collection of his miscellaneous writings:

All these writings exhibit proofs of their having proceeded from a statesman endowed with foresight and vigilant for the best interests of his country according to the political combinations and systems of government under which they were composed, and they manifest, at the same time, an ardent desire for the general happiness of mankind, founded on principles and calculations carried to as high a degree of demonstration as the vicissitude and inconsistency of the various systems adopted for the government of men will admit. Your views and reflections show the solidity and permanence of your principles, whether considered as applicable to the American colonies in their former condition or in that of independent States. In both cases your efforts have been directed to the general good without running into those extremes which are apt to lead astray weak minds in so long and arduous a contest, as we have seen in America, for the establishment of a new State consisting of 13 provinces under different constitutions and, at last, united in a bond of union for the mutual benefit of each other.

Nature, which you have profoundly studied, is indebted to you for investigating and explaining phenomena which wise men had not before been able to understand, and the great American philosopher, at the same time he discovers these phenomena, suggests useful methods for guarding men against their dangers.

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[a] He was one of the commissioners of Congress to visit the American Commander in Chief.
[b] I. e., Massachusetts.

He was fond of suggesting the future greatness of America, its increasing population, its acquisition of territory, and the spread of the English language throughout the world. In a letter to William Strahan, written from Passy, August 19, 1784, he touches on this:

By the way, the rapid growth and extension of the English language in America must become greatly advantageous to the booksellers and holders of copyrights in England. A vast audience is assembling there for English authors—ancient, present, and future, our people doubling every twenty years—and this will demand large and, of course, profitable impressions of your most valuable books. I would, therefore, if I possessed such rights, entail them, if such a thing be practicable, upon my posterity, for their worth will be continually augmenting.

This is a prophecy of the circulation in America of Macaulay, Thackeray, Dickens, Tennyson, and other great English writers. The recent perfection of international copyright tends to the realization of Franklin's suggestion of "entailing" such rights for the benefit of the posterity of authors. In the same letter he says:

The subject, however, leads me to another thought, which is, that you do wrong to discourage the emigration of Englishmen to America. In my piece on "Population," I have proved, I think, that emigration does not diminish but multiplies a nation. You will not have fewer at home for those that go abroad; and as every man who comes among us and takes up a piece of land becomes a citizen, and by our Constitution has a voice in elections and a share in the government of the country, why should you be against acquiring by this fair means a repossession of it, and leave it to be taken by foreigners of all nations and languages, who by their numbers may drown and stifle the English, which otherwise would probably become in the course of two centuries the most extensive language in the world, the Spanish only excepted? It is a fact that the Irish emigrants and their children are now in possession of the government of Pennsylvania, by their majority in the assembly, as well as of a great part of the territory; and I remember well the first ship that brought any of them over.

His ideas on immigration.

The agitation of the question of immigration, based upon danger of stifling the Anglo-Saxon character of American institutions, suggests how accurate was Franklin's foresight. The occupation of Central and South America by Spain made the Spanish language one of the imperial languages of the world, and Spanish and English, a century after Franklin wrote this letter, are the two most extensively used languages in the New World. These wise judgments were based upon intuition rather than reason, for many of the data which would enter into such a conclusion were beyond his reach. We should not forget that facilities for acquiring the almost innumerable facts which now substantiate such conclusions were greatly limited in his time, and the comprehensive character of his mental operations becomes the more remarkable when we reflect upon the confines within which his observations were conducted. A case in point is Bryce's American Commonwealth, a remarkable book produced by a scholarly and sympathizing Englishman whose intuitions equipped him to describe American institutions. His reasons for the character of our institutions are, however, at times defective. In Franklin's philosophy there is a like dependence upon the intuitions. Franklin observed, felt, and knew. Speculation attracted him but little; he judged of the utilities almost wholly by intuition.

Franklin advocates a "more perfect union."

After the Revolution thoughtful Americans realized that the Articles of Confederation were defective and that a national constitution was necessary. This is not the place in which to follow minutely the thoughts and the work of Franklin for the National Constitution,[a] but there are several passages in his writings which illustrate his views:

Our Constitution seems not to be well understood with you [says he, writing to

[a] See note, p. 158.

George Whately from Passy, May 23, 1785]. If the Congress were a permanent body, there would be more reason in being jealous of giving it powers. But its members are chosen annually, can not be chosen more than three years successively, nor more than three years in seven; and any of them may be recalled at any time, whenever their constituents shall be dissatisfied with their conduct. They are of the people, and return again to mix with the people, having no more durable preeminence than the different grains of sand in an hourglass. Such an assembly can not easily become dangerous to liberty. They are the servants of the people, sent together to do the people's business and promote the public welfare; their power must be sufficient, or their duties can not be performed.

He did not highly value the mere forms of government, and his keen recognition of the essential and superior importance of administration over elaborate statements of the theory of government is repeatedly set forth in his writings from this time. Destined himself to participate in the making of the National Constitution, it is interesting to follow the course of his own ideas, gained through a long and useful public life. He valued a useful administration of government, even a government defective in form, more highly than a good form of government badly administered.[a] Perhaps he displayed the strength of his practical judgment nowhere more instructively than in this appreciation of the importance of administration. The eighteenth century produced many eminent men who contributed to our knowledge of the theory of government, but it produced very few men who were able to set forth the principles by which government should be administered. In this respect Franklin stood almost alone—perhaps with the exception of Alexander Hamilton, quite alone. Both of these statemen foresaw the great problem of our century, the problem of civil administration. We no longer debate, as did the Junto a hundred and fifty years ago, the theories and abstractions of government. Our practical affairs are administrative in their nature. Franklin illustrates the perennial freshness and modern character of his mind in his emphasis of the supreme importance of the administration of affairs. He was a citizen of all time.

The administration *v.* the theory of government.

IV.

THREE INTERPRETERS.

On his final return to America from Europe, in 1785, he was greeted by the assembly of Pennsylvania as "a person greatly instrumental in forming its free constitution."[b] As the weakness of the Confederation disclosed itself, suggestions for a "more perfect union" became frequent from the eminent men of the country. In writing to his beloved friend, Dr. Shipley, bishop of St. Asaph, February 24, 1786, he says:

Received by the Pennsylvania assembly.

You seem desirous of knowing what progress we are making here in improving our governments. We are, I think, in the right road of improvement, for we are making experiments. I do not oppose all that seems wrong, for the multitude are more effectually set right by experience than kept from going wrong by reasoning with them, and I think we are daily more and more enlightened, so that I have no doubt of our obtaining in a few years as much public felicity as good government is capable of affording.

Your newspapers are filled with fictitious accounts of anarchy, confusion, distresses, and miseries we are supposed to be involved in as consequences of the Revolution, and the few remaining friends of the old government among us take pains to magnify every little inconvenience a change in the course of commerce may have occasioned.

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[a] In his last speech in the convention of 1787 he said: "I think a general government necessary for us, and there is no form of government but what may be a blessing to the people if well administered."

[b] See the address of the assembly, Bigelow, Vol. IX, 248.

Jefferson's ideas of Shays' rebellion.

His calm remark, at a time when the Confederation was greatly in danger from such commotions as Shays' rebellion, that "we are making experiments," recalls Jefferson's opinion of that insurrection:

Commotions offer nothing threatening; they are a proof that the people have liberty enough, and I could not wish them less than they have. If the happiness of the mass of the people can be secured by the occasional expense of a little temper now and then, or even of a little blood, it will be a precious purchase.

To punish these errors too severely would be to suppress the only safeguard of the public liberty.

A little rebellion now and then is a good thing. * * * An observation of this truth should render honest Republican governors so mild in their punishment of rebellions as not to discourage them too much. It is a medicine necessary for the sound health of government.

Thus I calculate an insurrection in one of the thirteen States in the course of eleven years * * * amounts to one in any particular State in one hundred and forty-seven years—say a century and a half. This would not be near as many as have happened in any prior government that has ever existed, so that we shall have the difference between a light and a heavy government as clear gain.

Can history produce a history of a rebellion so honorably conducted? * * * God forbid that we should ever be twenty years without such a rebellion. What signifies a few lives lost in a century or two? The tree of liberty must be refreshed from time to time with the blood of patriots and tyrants. It is its natural manure.

Franklin's ideas of it.

Franklin wrote to Dr. Shipley before Shays' rebellion; Jefferson wrote after it. The different view which each takes of that most threatening uprising illustrates quite perfectly the difference between the two men in their opinions of government. It is in this letter to Dr. Shipley that Franklin, in acknowledging the receipt of Paley's Moral Philosophy, says:

The new book you gave me * * * I think generally well written and likely to do good, though the reading time of most people is of late so taken up with newspapers and little periodical pamphlets that few nowadays venture to attempt reading a quarto volume. I have admired to see that, in the last century, a folio, Burton on Melancholy, went through six editions in about forty years. We have, I believe, more readers now, but not of such large books.[a]

He anticipated the days of the modern newspaper and of little books, compendious, comprehensive, and entertaining. It will be remembered that he advocated giving "little books, with gilt edges and red covers," as prizes to the children in his English school.

In the same letter he speaks of death, to which, says he, "I shall submit with the less regret, as, having seen during a long life a good deal of this world, I feel a growing curiosity to be acquainted with some other, and can cheerfully, with filial confidence, resign my spirit to the conduct of that great and good Parent of mankind who created it, and who has so graciously protected and prospered me from my birth to the present hour."

Curious to see another world.

Having largely exhausted the resources of this world he was desirous of experimenting in another, and without doubt he desired no other immortality than the continuation of the life which he had lived—attaining moral perfection, observing phenomena and registering his conclusions concerning them, and contributing as far as possible to the general welfare of the inhabitants of another world.

While his mind was turned to the mysteries of life and death, he did not neglect congenial employment in some of the practical interests of this world. On the 8th of the following April, in a letter to his sister, he acknowledged the receipt

[a] For his letter at the time to the Duke de la Rochefoucauld, April 15, 1787, see Bigelow, Vol. IX, 368.

of a box of soap, "the substance of which appears to be very good, but its consistence had probably been affected by the frost, for unless very tenderly and cautiously handled the cakes would crumble into little pieces between one's fingers. However, having an opportunity of sending some to my friends in France, who much admired what I had of you formerly, I with much difficulty took out twenty-two cakes which I wrapped separately in spongy paper, hoping that as they dried they might consolidate and the infinite number of little cracks that appeared in them be closed and the parts again united; and so I sent them away in a small box."

The attention which he gave to his sister's imperfect soap suggests that he was still the son of the tallow chandler and kindly regardful of the practical concerns of his beloved sister, for he concludes his letter, saying: "Draw upon me for the expense of the soap and your bill shall be paid on sight."

It was in the year 1786 that the people who had crossed over the mountains and settled in the country now called Tennessee gave to their new commonwealth the name Franklin. The name of the new country continued only for a short time, but it is an evidence of the affection in which Franklin was held by his countrymen.[a]

In this year the celebrated letter to Thomas Paine was written in which Franklin advised him about publishing his Age of Reason. Its arguments were subtle and might prevail with some readers, but would they succeed in changing the general sentiments of mankind? Would not the consequence of printing the piece be that a great deal of odium would be drawn upon its author and no one would be benefited? "He that spits against the wind spits in his own face."[b]

He was elected in 1787 a delegate to the convention which revised the old Articles of Confederation and proposed a better Constitution; but though he was to be one of the immortals in that business he doubted whether his malady would permit him giving it his constant attention. There is evidence that he was present at most of the sessions. Ill health prevented him frequently from walking, but he struggled against the disease and took as much exercise as possible. He was afterwards able to say in a letter to his sister, September 20, 1787:

> The convention finished the 17th instant. I attended the business of it five hours in every day from the beginning, which is something more than four months. You may judge from thence that my health continues; some tell me I look better, and they suppose the daily exercise of going and returning from the statehouse has done me good.

This reference to his health and of his going and returning from the statehouse is a bit of important evidence as to the place where the Constitution of the United States was made.[c]

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[a] See A Declaration of Rights; also, The Constitution or Form of Government Agreed to and Resolved Upon by the Representatives of the Freemen of the State of Frankland, Elected and Chosen for that Particular Purpose, in Convention Assembled, at Greeneville, the 14th of November, 1785. Philadelphia: Printed by Francis Bailey, at Yoricks Head. MDCCLXXXVI. Reprinted, with an introduction and historical notes, in the American Historical Magazine, January, 1896. Nashville, Tenn.: Printed by the University Press, 208 N. College street. See also a short account of the State of Franklin (or Frankland) in my Constitutional History of the American People, 1776-1850, Vol. I, pp. 135-136.

By the census of 1890 (just a century after the death of Franklin) there were in the United States 24 Franklin counties, 33 towns called Franklin, 1 Franklin City, 1 Franklin Corners, 1 Franklin Crossroads, 1 Franklindale, 1 Franklin Depot, 2 Franklin Falls, 2 Franklin Furnaces, 1 Franklin Forks, 1 Franklin Grove, 1 Franklin Iron Works, 2 Franklin Mills, 1 Franklin's Mills, 2 Franklin parks, 1 Franklin Square, 2 Franklin stations, 4 Franklintons, 1 Franklintown, 6 Franklinvilles, and 1 Frankland. The number of Franklin streets and avenues is innumerable.

[b] See letter of June 15, 1786, Bigelow IX, p. 318; also April 9, 1787, idem, p. 361. This letter appears to be one of the many which Franklin wrote on various subjects, but never sent.

[c] The old statehouse on Chestnut street, below Sixth, Philadelphia.

His work in the convention was beneficent and his correspondence during the time interesting. To Jefferson he wrote, April 19, 1787:

Our Federal Constitution is generally thought defective, and a convention, first proposed by Virginia and since recommended by Congress, is to assemble here next month to revise it and propose amendments. The delegates generally appointed, as far as I have heard of them, are men of character for prudence and ability, so that I hope good from their meeting. Indeed, if it does not do good it must do harm, as it will show that we have not wisdom enough among us to govern ourselves, and will strengthen the opinion of some political writers that popular governments can not long support themselves.

The power of readjustment in a nation: Franklin's views.

His services in the convention were not inferior to those of any of his associates. The character of his suggestions might have been anticipated from the habits and experience of his life. He sought to harmonize the many differences between the States, and he applied to the problem the principles he had worked out in his diplomatic experience. He believed that each State should have equal suffrage, which should be in proportion to the sum it actually contributed to the National Treasury. His predominant idea was equality of representation; his chief object was to promote the general welfare by the maintenance of such equality; and it was ultimately secured by the dual system of representation in the Senate and the House of Representatives. "The forming of it [the Constitution] so as to accommodate all the different interests and views," said he, "was a difficult task; and, perhaps, after all, it may not be received with the same unanimity in the different States that the convention has given an example of in delivering it out for their consideration. We have done our best and it must take its chances." This sentiment illustrates his opinion that the Union is permanent as long as it has the power of readjusting itself to new conditions. This is the national idea, and Franklin was the chief northern exponent of it in the eighteenth century.

His influence in the convention won the general signature to the Constitution at last, and particularly his speech, which was read by Wilson just before the signing. We know that the convention was frequently inharmonious, and that there were serious threats of permanent interruption of its proceedings. It was in recognition of the danger of this calamity that Franklin made his celebrated motion "that henceforth prayers, imploring the assistance of Heaven and its blessing on our deliberations, be held in this assembly every morning before proceeding to business; and that one or more of the clergy of Philadelphia be requested to officiate."

However, the convention, except three or four persons, thought prayer unnecessary. It was in offering this motion that Frankin said:

In this situation of this assembly, groping, as it were, in the dark to find political truth, and scarce able to distinguish it when presented to us, how has it happened, sir, that we have not hitherto once thought of humbly applying to the Father of Lights to illuminate our understandings? In the beginning of the contest with Britain, when we were sensible of danger, we had daily prayers in this room for the Divine protection. Our prayers, sir, were heard, and they were graciously answered. All of us who were engaged in the struggle must have observed frequent instances of a superintending Providence in our favor. To that kind Providence we owe this happy opportunity of consulting in peace on the means of establishing our future national felicity. And have we now forgotten that powerful Friend, or do we imagine we no longer need its assistance? I have lived, sir, a long time, and the longer I live the more convincing proofs I see of this truth, *that God governs in the affairs of men*. And, if a sparrow can not fall to the ground without His notice, is it probable that an empire can rise without His aid? We have been assured, sir, in the sacred writings, that "except the Lord build the house, they labor in vain that build it." I firmly believe this, and I also believe that, without His concurring aid, we shall succeed in this political building no better than the builders of Babel; we shall be divided by our little, partial, local interests, our projects will be confounded, and we ourselves shall become a reproach

"God governs in the affairs of men."

and a byword down to future ages. And, what is worse, mankind may hereafter, from this unfortunate instance, despair of establishing government by human wisdom, and leave it to chance, war, and conquest.

"We are a nation of politicians."

His comments, in letters to friends, on the adoption of the Constitution, emphasize many of his opinions already known to us. To M. Le Veillard he wrote, February 17, 1788:

I sent you with my last a copy of the new Constitution proposed for the United States by the late general convention. I sent one also to our excellent friend the Duke de la Rochefoucauld. I attended the business of the convention faithfully for four months. Inclosed you have the last speech I made in it. Six States have already adopted the Constitution, and there is now little doubt of its being accepted by a sufficient number to carry it into execution, if not immediately by the whole. It has, however, met with great opposition in some States, for we are at present a nation of politicians. And, though there is a general dread of giving too much power to our governors, I think we are more in danger from too little obedience in the governed.

We shall, as you suppose, have imposts on trade and custom-houses, not because other nations have them, but because we can not at present do without them. We want to discharge our public debt occasioned by the late war. Direct taxes are not so easily levied on the scantily settled inhabitants of our wide-extended country; and what is paid in the price of merchandise is felt less by the consumer, and less the cause of complaint. When we are out of debt we may leave our trade free, for our ordinary charges of government will not be great.

To M. Dupont de Nemours, on the 9th of June, he wrote, characteristically: "But we must not expect that a new government may be formed, as a game of chess may be played by a skillful hand, without a fault;" and he proceeded to illustrate his favorite idea that experience would determine the true course of the new government.

Franklin's optimism.

As he aged he became somewhat optimistical, an unusual thing with old persons, and perhaps he gave the fullest expression to his optimism in another letter to M. Le Veillard, June 8, 1788: "Thank God, the world is growing wiser and wiser, and as by degrees men are convinced of the folly of wars for religion, for dominion, or for commerce they will be happier and happier."

Though past 80 years of age, he continued to take an interest in all the affairs of mankind, and the writings of his closing years manifest no decay of mental power. Some of his most perfect papers in style and grasp of subject were written in the last two years of his life. He saw improvement and encouragement everywhere. He declares in his pamphlet on the Internal State of America, 1784:

It is true that in some of the States there are parties and discords; but let us look back and ask if we were ever without them. Such will exist wherever there is liberty, and perhaps they help to preserve it. By the collision of different sentiments sparks of truth are struck out and political light is obtained. The different factions which at present divide us aim all at the public good; the differences are only about the various modes of promoting it. * * * Parties are therefore the common lot of humanity, and ours are by no means more mischievous or less beneficial than those of other countries, nations, and ages enjoying in the same degree the great blessing of political liberty.

This was written when the bitterness of party feeling was as intense as it has ever been in our history.

Whoever has traveled [he also remarks] through the various parts of Europe and observed how small is the proportion of people in affluence or easy circumstances there, compared with those in poverty and misery; the few rich and haughty landlords, the multitude of poor, abject, rack-rented, tithe-paying tenants, and half-paid and half-starved ragged laborers; and views here the happy mediocrity that so generally prevails throughout these States, where the cultivator works for himself and supports his family in decent plenty, will, methinks, see abundant reason to bless Divine Providence for the evident and great difference in our favor

and be convinced that no nation known to us enjoys a greater share of human felicity.

This optimistic view of America is characteristic of the man, and probably expresses the opinion which the American people now have of their country.

His advice to immigrants.

In his paper on the Prospect for Emigrants to America he says:

No rewards are given to encourage new settlers to come among us, whatever degree of property they may bring with them, nor any exemptions from common duties. Our country offers to strangers nothing but a good climate, fertile soil, wholesome air, free governments, wise laws, liberty, a good people to live among, and a hearty welcome. Those Europeans who have these or greater advantages at home would do well to stay there.

This paragraph might be epitomized in the saying that a man's country is where he is best off, a saying to which Franklin would doubtless give his approval.

Letter to Washington on slavery.

He had long been in favor of the abolition of slavery, and around his closing years gathered a halo of the light which shines from the writings of men on behalf of the slave. His plan for the improvement of the African race was outlined in a letter to Washington somewhat in the form of a report.

First. A committee of inspection should superintend the morals, general conduct, and ordinary situation of free negroes, and furnish them advice and instruction, protection from wrongs, and other friendly offices.

Second. A committee of guardians should place out children and young people with suitable persons, that they might during a moderate term of apprenticeship or servitude learn some trade or other business for subsistence. In forming contracts on these occasions the committee should secure to the society, as far as practicable, the right of guardianship over persons so bound.

Third. A committee of education should superintend the school instruction of the children of the free blacks. They might either influence them to attend regularly the schools already established or form others with this view. They should in other cases provide that the pupils might receive such learning as is necessary for their future situation in life and especially a deep impression of the most important and generally acknowledged moral and religious principles.

Fourth. A committee of employ should endeavor to procure constant employment for those free negroes who were to work, as the want of this would occasion poverty, idleness, and many vicious habits. And he incorporated in this part of his plan the same notions which he had already expressed in his plan for the management of the orphan schoolhouses, that the committee, in providing employment for those qualified to take it, should prevail upon the apprentices to bind themselves for such a term of years as might compensate their masters for the expense and trouble of their instruction and maintenance. Useful and simple manufactures, such as require but little skill, should be entered upon as a substantial means of assisting those who are qualified to commence business for themselves. The expense incident to the prosecution of this plan was to be defrayed by a fund formed by donations or subscriptions for the particular purpose.

Franklin and Noah Webster.

Perhaps no more interesting letter is found in the correspondence of this part of his life than his communication to Noah Webster, December 26, 1789, acknowledging a copy of Webster's Dissertations on the English Language. Franklin pronounced it "an excellent work," one that would be greatly useful "in turning the thoughts of our countrymen to correct writing." After commenting upon some new words that had come into the language since 1723, he continues:

The Latin language, long the vehicle used in distributing knowledge among the different nations of Europe, is daily more and more neglected; and one of the

modern tongues, namely, the French, seems in point of universality to have supplied its place. It is spoken in all the courts of Europe, and most of the literati, those even who do not speak it, have acquired knowledge enough of it to enable them easily to read the books that are written in it. This gives a considerable advantage to that nation; it enables its authors to inculcate and spread throughout other nations such sentiments and opinions on important points as are most conducive to its interests, or which may contribute to its reputation by promoting the common interests of mankind. It is perhaps owing to its being written in French that Voltaire's treatise on Toleration has had so sudden and so great an effect on the bigotry of Europe as almost entirely to disarm it. The general use of the French language has likewise a very advantageous effect on the profits of the bookselling branch of commerce, it being well known that the more copies can be sold that are struck off from one composition of types, the profits increase in a much greater proportion than they do in making a great number of pieces in any other kind of manufacture. And at present there is no capital town in Europe without a French bookseller's shop corresponding with Paris.

His prophecy concerning the English language.

But Franklin not only discerned the universality of the French tongue. He anticipated the growing universality of the English:

Our English bids fair to obtain the second place. The great body of excellent printed sermons in our language, and the freedom of our writings on political subjects, have induced a number of divines of different sects and nations, as well as gentlemen concerned in public affairs, to study it; so far at least as to read it. And if we were to endeavor the facilitating its progress, the study of our tongue might become much more general. Those who have employed some parts of their time in learning a new language have frequently observed that, while their acquaintance with it was imperfect, difficulties small in themselves operated as great ones in obstructing their progress. A book, for example, ill printed, or a pronunciation in speaking not well articulated, would render a sentence unintelligible, which from a clear print or a distinct speaker would have been immediately comprehended. If, therefore, we would have the benefit of seeing our language more generally known among mankind, we should endeavor to remove all the difficulties, however small, that discourage the learning it.

He concluded his letter to Webster by remarking that the spelling book which Webster had sent him was miserably printed on wretched paper. It is interesting to know that this spelling book, the most famous ever made and which in our day is used annually, it is said, to the number of more than a million copies, was approved by Franklin. His appeal for the English language in his letter to Webster was his last word on education. He ended as he began, encouraging the study of his native language and its literature. The empire of that language and that literature which he foresaw is realized in our day.

His last word on education.

Educational views of Franklin, Adams, and Jefferson compared.

His ideas of education differed from those of his contemporaries. In order to show by comparison and contrast the educational notions which lie at the bottom of his philosophy, his ideas may be compared with those of John Adams and Thomas Jefferson. It may be premised that Adams's ideas of education are typical of New England thought on the subject, and by comparing them with Franklin's it will be seen how the surroundings of Franklin in Pennsylvania modified his early New England notions. This difference, once understood, aids perhaps in explaining some of the variations between the plans of education prevalent in New England and the middle colonies.

Franklin was a self-taught man; John Adams graduated a bachelor of arts at Harvard College in 1755, and soon after became the teacher of the grammar school in the town of Worcester. As was the case frequently with New England schoolmasters, teaching with Adams was only an expedient to supply, for the time being, the wants of life and to afford sufficient leisure to read law.

Adams was closely associated with Franklin in public life, both being members of important committees in the old Congress, the most famous of which drafted

the Declaration of Independence. Both had the independence of the colonies at heart while yet that independence seemed a great way off, and both served their country in diplomatic relations in Europe. They were much unlike in character, Franklin being easy, generous, liberal in his views, full of tact, wise in his observations, and preeminently happy in his relations with men; John Adams was upright and active, but suspicious, puritanical, and abrupt, ever viewing public affairs as a lawyer considers the case in hand and ever filled with an enormous capacity for business. We have already seen how the various activities in which Franklin was engaged through life determined his educational notions. In a similar manner John Adams's activities, which were chiefly legal and political, gave character to his educational ideas. Franklin was ever suggesting education as a means for cultivating the applied arts, for improving agriculture, for extending the conquests of science, and for promoting the general welfare.

It must have been noticed in this outline of his ideas that he gave very little attention, in his Plan of Education, to political studies, though he mentions them and urges the study of the principles of government, history, and politics. But he founds his scheme of education not upon a political but a scientific and industrial basis, for he was a man active in industrial affairs. He was little given to speculation and apt to view political events as mere changes on the sea of public opinion. Adams, on the other hand, was a born politician. The oldest letter of John Adams, written while yet a school-teacher in Worcester, October 12, 1755, is a political essay, in which he says that his friends should not be surprised that he was turned politician: the whole town is immersed in politics, the interests of nations and the *diræ* of war made the subject of every conversation. "I sit and hear, and after having been led through a maze of sage observations I sometimes retire and by laying things together form some reflections pleasing to myself."[a]

He was always "immersed in politics," and politics was the basis of his educational ideas. These first appear in his treatise on government:

> Laws for the liberal education of youth, especially of the lower classes of people, are so extremely wise and useful, that, to a humane and generous mind, no expense for this purpose would be thought extravagant.

He is the type of those men who would prescribe the means and ends of the state and "by good laws regulate all the affairs of mankind." Nowhere does Franklin hint at a "law which should provide for the liberal education of youth;" he never carried his scheme of education into government. John Adams, on the contrary, would embody a provision for education in the fundamentals of government, and this he did in the constitution of Massachusetts of 1780, of which instrument he was the chief author:[b]

Adams the father of the public school.

> Wisdom and knowledge, as well as virtue, diffused generally among the body of the people, being necessary for the preservation of their rights and liberties, and as these depend on spreading the opportunities and advantages of education in the various parts of the country and among the different orders of the people, it shall be the duty of legislators and magistrates, in all future periods of this Commonwealth, to cherish the interests of literature and the sciences and all seminaries of them, especially the University at Cambridge, public schools and grammar schools in the towns; to encourage private societies and public institutions, rewards and immunities for the promotion of agriculture, arts, sciences, commerce, trades, manufactures, and a natural history of the country; to countenance and inculcate the principles of humanity and general benevolence, public and private charity, industry and frugality, honesty and punctuality in their dealings, sincerity, good humor, and all social affections and generous sentiments among the people.

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[a] Life and Works of John Adams, Vol. I, page 24.

[b] Section II. The Encouragement of Literature, etc.

His grandson, Charles Francis Adams, gives us some information of the origin of this celebrated clause:

This feature of the constitution of Massachusetts is peculiar, and in one sense original with Mr. Adams. The recognition of the obligation of a State to promote a higher and more extended policy than is embraced in the protection of the temporal interests and political rights of the individual, however understood among enlightened minds, had not at that time been formally made a part of the organic law. Those clauses, since inserted in other State constitutions, which, with more or less fullness, acknowledge the same principle are all manifestly taken from this source. The following history of the origin of it is taken from an account given by the author in 1809:

"In travelling from Boston to Philadelphia in 1774, '75, '76, and '77, I had several times amused myself, at Norwalk in Connecticut, with the very curious collection of birds and insects of American production made by Mr. Arnold, a collection which he afterwards sold to Governor Tryon, who sold it to Sir Ashton Lever, in whose apartments in London I afterwards viewed it again. This collection was so singular a thing that it made a deep impression upon me, and I could not but consider it a reproach to my country that so little was known, even to herself, of her natural history.

"When I was in Europe in the years 1778 and 1779 in the commission to the King of France, with Dr. Franklin and Mr. Arthur Lee, I had opportunities to see the King's collection and many others, which increased my wishes that nature might be examined and studied in my own country, as it was in others.

Adams learns from Franklin's Philosophical Society.

"In France, among the academicians and other men of science and letters, I was frequently entertained with inquiries concerning the Philosophical Society of Philadelphia, and with eulogiums on the wisdom of that institution and encomiums on some publications in their Transactions. These conversations suggested to me the idea of such an establishment at Boston, where I knew there was as much love for science, and as many gentlemen who were capable of pursuing it, as in any other city of its size.

"In 1779 I returned to Boston in the French frigate *La Sensible* with the Chevalier de la Luzerne and M. Marbois. The corporation of Harvard College gave a public dinner in honor of the French ambassador and his suite and did me the honor of an invitation to dine with them. At table, in the philosophy chamber, I chanced to sit next to Dr. Cooper. I entertained him during the whole of the time we were together with an account of Arnold's collection, the collections I had seen in Europe, the compliments I had heard in France upon the Philosophical Society at Philadelphia, and concluded with proposing that the future legislation of Massachusetts should institute an academy of arts and sciences.

"The Doctor at first hesitated, thought it would be difficult to find members who would attend to it; but his principal objection was that it would injure Harvard College by setting up a rival to it that might draw the attention and affections of the public in some degree from it. To this I answered, first, that there were certainly men of learning enough that might compose a society sufficiently numerous; and secondly, that instead of being a rival to the university, it would be an honor and advantage to it; that the president and principal professors would no doubt be always members of it, and the meetings might be ordered, wholly or in part, at the college and in that room. The Doctor at length appeared better satisfied, and I entreated him to propagate the idea and the plan, as far and as soon as his discretion would justify. The Doctor accordingly did diffuse the project so judiciously and effectually that the first legislature under the new constitution adopted and established it by law.

"Afterwards, when attending the convention for forming the constitution, I mentioned the subject to several members, and when I was appointed by the subcommittee to make a draught of a project of a constitution to be laid before the convention, my mind and heart were so full of this subject that I inserted the chapter fifth, section second.

"I was somewhat apprehensive that criticism and objections would be made to the section, and particularly that the 'natural history,' and 'the good humor' would be stricken out; but the whole was received very kindly and passed the convention unanimously without amendment."

It is a singularity, perhaps worthy of note in connection with these injunctions, that the individuals who have since been elevated by the popular voice to the chief offices of the State, with a single exception, have not been noted among their fellow-citizens for any superior acquisitions of learning or intellectual culture.

A considerable number have not gone through the higher grades of education in Massachusetts at all.

Adams proposes a system of public education.

John Adams has the fame of being the first American statesman to incorporate in a State constitution a provision for public education. There were no public schools in Pennsylvania in Franklin's day, and all his ideas of education related chiefly to private enterprise and individual effort. There had been schools in Massachusetts from the beginning of the colony, and the momentum of educational ideas accumulated during a century and a half carried into the first State constitution this celebrated provision for the encouragement of learning. It will be noticed that Adams's plan provided for "the promotion of agriculture, arts, sciences, commerce, trades, manufactures, and a natural history of the country," the original suggestion of which is explained by his grandson.

It is a characteristic New England idea to make education a matter of law. Class distinctions in New England were marked in Franklin's day. The children of the tallow chandler were not classed as fit companions for the children of clergymen and lawyers. This should be remembered in interpreting another passage in Adams's treatise on government, pertaining to education:

The education here intended is not merely that of the children of the rich and noble, but of every rank and class of people, down to the lowest and the poorest. It is not too much to say that schools for the education of all should be placed at convenient distances, and maintained at the public expense. The revenues of the State would be applied infinitely better, more charitably, wisely, usefully, and therefore politically, in this way, than even in maintaining the poor. This would be the best way of preventing the existence of the poor. If nations should ever be wise, instead of erecting thousands of useless offices, of engaging in unmeaning wars, they will make a fundamental maxim of this, that no human being shall grow up in ignorance. In proportion as this is done tyranny will disappear, kings and nobles will be made to feel their equitable equality with commoners, and commoners will see their interest and duty to respect the guardians of the laws; for guardians they must have as long as human nature endures. There is no room to doubt that the schools, academies, and universities, the stage, the press, the bar, the pulpit, and Parliament might all be improved to better purpose than they have been in any country for this great purpose.

Again, speaking of a pure democracy:

The greater number of every people are still ignorant, and, although their leaders might artfully persuade them to a thousand idle expenses, they would not be able to persuade them to this [i. e., to maintain schools and universities at the public expense]. Education, then, must be supported by private munificence; and this source, although sufficient to maintain a few schools and a university in a great nation, can never be sufficient to maintain schools in sufficient numbers to educate a whole people. Where a senate is preserved it is always a maxim with them to respect learning, and educate their own families; their example is followed by all others who are in any way in easy circumstances. In a government of three branches commoners as well as nobles are under the necessity of educating their children, because they hope to be called to public service, where it is necessary. In all the mixed governments of antiquity education was necessary, and where the people had a share it was the most generally practiced, but in a simple government it never was general. In Sparta it was far from being general; it was confined to youth of family; so it was under the aristocracy in Rome. And although we have no examples of simple democracy to recur to, we need only consider that the majority must be ignorant and poor, and recollect the murmurs and opposition made by numbers of the lowest classes, who are often joined for sinister purposes by some men of consequence, to be convinced that a general public education never can long exist in a simple democracy; the stinginess, the envy, and malignity of the base and ignorant would be flattered by the artful and designing, and the education of every family left to its own expense, that the rich only might have their children educated.

Self-education vs. public education.

Franklin would never have mentioned education in such a connection; he did not view the State as merely a political concern. Frequently he had occasion to remark on the different

condition of the rich and poor, and he was ever projecting schemes by which the poor might become rich: he would set everybody on the way to wealth. Industry, frugality, and self-education were the bases of Franklin's conception of the State. Adams, on the other hand, viewed the State wholly as a lawyer, conceived it as an affair of laws, which would adjust or attempt to adjust the rights of the rich and the poor, the weak and the strong, the good and the bad, and therefore, placing law as of chief importance in the State, he would regulate education by law. Nowhere does Adams intimate that the individual should educate himself.

Adams an aristocrat; Franklin a democrat.

When in Holland in 1780 Adams wrote a number of letters upon interesting phases of the American Revolution, and in reply to an inquiry "whether the common people in America are not inclined, when they are able to find sufficient means, to frustrate by force the good intentions of the politicians," he wrote:

> The difference in that country [America] is not so great as it is in some others between the common people and the gentlemen; for noblemen we have none. There is no country where the common people—I mean the tradesmen, the husbandmen, and the laboring people—have such advantages of education as in that [America], and it may be truly said that their education, their understanding, and their knowledge are as nearly equal as their birth, fortune, dignities, and titles.

This might be expected from one whom his enemies sometimes called "the well-born," and it was strictly in keeping with the general tone of New England thought at the time. Nowhere in Franklin's writings can be found such a statement as Adams's, that knowledge among Americans is "as nearly equal as their birth, fortune, dignities, and titles." The counter statement is made in the Autobiography respecting the beneficial effect of foundfng the Philadelphia Library.

Adams or Franklin.

In other words, Franklin was a democrat in his educational ideas; Adams a New England aristocrat of the radical type, who would direct and guard the people's interest, discriminate as to their "birth, fortune, dignities, and titles," and by the artifice of law attempt to equalize their condition, as far as possible.

The different effect on America of the ideas of these two men is apparent in our time. Franklin's plan of self-education, rising to the dignity of utilitarian philosophy, has profoundly influenced the American people and stimulated thousands to improve themselves and acquire by frugality and industry advantages not theirs by birth. Adams, prescribing public education by the law of the State, was among the founders of our public-school system, by which the State educates the youth at public expense. Adams's ideas of education have eliminated, largely and necessarily, from the body of youth receiving instruction at the expense of the State, that personal, ambitious interest in self-education which is characteristic of those who follow Franklin's plan. Our public schools are characterized by a mechanism which produces uniform training of an average quality, and transforms ignorant childhood into book-taught youth, often without stirring that sense of personal concern in the acquisition of knowledge of which Franklin was always fondly speaking.

If John Adams was instrumental in founding the public-school system of the United States, when he incorporated in the constitution of Massachusetts of 1780 that famous clause providing for the maintenance of public schools and higher institutions of learning at public expense, an idea which has largely influenced the entire North, and which may be traced in successive State constitutions that have been made from Massachusetts to Oregon; and if he was successful in incorporating education by law in the organization of the State, yet he failed, as all have failed who would resolve education into a conformity with the requirements

of a law, however wise in its ultimate purposes, in founding a system of education which can compete in true value with that system which, like Franklin's, transforms every individual into an ever improving, self-educating soul.

Followers of Franklin.

Doubtless it has occurred to the reader that of the Franklin model are such men as Horace Greeley, Abraham Lincoln, Robert Fulton, and Thomas A. Edison, original and creating minds, self-taught, yet ranking among the determinative forces in America. It is the old story of the college-made and the self-made man; but we must admit that, as human nature is at present constituted, it is better for our country to have the advantage of results obtained by the application of John Adams's plan for conventional education, prescribing it in the fundamental law of the State rather than running the risk of securing an educated democracy by the application of Franklin's plan of self-education. The few will profit by Franklin's example, the many will be improved by the operation of the laws which John Adams advocated. In fine, Franklin's ideas apply to individuals, Adams's to the welfare of the masses.

John Adams wrote in 1785: "The whole people must take upon themselves the education of the whole people and must be willing to bear the expense of it. There should not be a district of 1 mile square without a school in it, not founded by a charitable individual, but maintained at the expense of the people themselves." Benjamin Rush had written to Adams his opinions that "the benefits of free schools should not be overlooked. Indeed, suffrage in my opinion should never be permitted to a man that could not write or read." [a]

To which Adams replied: "Free schools, and all schools, colleges, academies, and seminaries of learning, I can recommend from my heart, but I dare not say that the suffrage should never be permitted to a man who can not read and write. What would become of the Republic of France if the lives, fortunes, and character of the twenty-four millions and a half men who can neither read nor write should be at the absolute disposal of 500,000 who can read?" Rush's opinion of an educational qualification for voting has never prevailed in this country.

In the closing years of his life Adams was in close and delightful correspondence with Thomas Jefferson, at a time when Jefferson was engaged in establishing the University of Virginia. In a letter to Jefferson, written from Quincy, July 16, 1814, we obtain quite a glimpse of the character of Adams's education if not of his ideas on that subject:

I am very glad you have seriously read Plato, and still more rejoiced to find that your reflections upon him so perfectly harmonize with mine. Some thirty years ago I took upon me the severe task of going through all his works. With the help of two Latin translations and one English and one French translation and comparing some of the most remarkable passages with the Greek I labored through the tedious toil. My disappointment was very great, my astonishment was greater, and my disgust was shocking. Two things only did I learn from him—first, that Franklin's ideas of exempting husbandmen and mariners, etc., from the depredations of war were borrowed from him, and, second, that sneezing is a cure for the hiccough. Accordingly I have cured myself and all my friends of that provoking disorder for thirty years with a pinch of snuff.

Some parts of his dialogues are entertaining, like the writings of Rousseau; but his Laws and his Republic, from which I expected most, disappointed me most. I could scarcely exclude the suspicion that he intended the latter as a bitter satire upon all republican governments, as Xenophon undoubtedly designed by his essay on democracy to ridicule that species of republic. In a late letter to the learned and ingenious Mr. Taylor, of Hazelwood, I suggested to him the project of writing a novel, in which the hero should be sent on his travels through Plato's Republic, and all his adventures, with his observations on the principles and opinions, the arts and sciences, the manners, customs, and habits of the citizens should be recorded. Nothing can be conceived more destructive of human happiness, more infallibly contrived to transform men and women into brutes, yahoos, or

[a] Works, Vol. IX, p. 540. Letter to John Jebb, September 10, 1785.

demons than a community of wives and property. Yet, in what are the writings of Rousseau and Helvetius wiser than those of Plato? "The man who first fenced a tobacco yard, and said, 'This is mine,' ought instantly to have been put to death," says Rousseau. "The man who first pronounced the barbarous word "Dieu" ought to have been immediately destroyed," says Diderot. In short, philosophers, ancient and modern, appear to me as mad as Hindoos, Mahometans, and Christians. No doubt they would all think me mad; and, for anything I know, this globe may be the bedlam, le Bicêtre, of the universe.

After all, as long as property exists, it will accumulate in individuals and families. As long as marriage exists, knowledge, property, and influence will accumulate in families. Your and our equal partition of intestate estates, instead of preventing, will, in time, augment the evil, if it is one. The French revolutionists saw this, and were so far consistent. When they burned pedigrees and genealogical trees, they annihilated, as far as they could, marriages, knowing that marriage, among a thousand other things, was an infallible source of aristocracy. I repeat it, so sure as the idea and the existence of property is admitted and established in society, accumulations of it will be made—the snowball will grow as it rolls.

Cicero was educated in the groves of Academus, where the name and memory of Plato were idolized to such a degree that if he had wholly renounced the prejudices of his education his reputation would have been lessened if not injured and ruined. In his two volumes of Discourses on Government we may presume that he fully examined Plato's Laws and Republic as well as Aristotle's writings on government. But these have been carefully destroyed, not improbably with the general consent of philosophers, politicians, and priests. The loss is as much to be regretted as that of any production of antiquity.

Nothing seizes the attention of the staring animal so surely as paradox, riddle, mystery, invention, discovery, wonder, temerity.

Plato and his disciples from the fourth century Christians to Rousseau and Tom Paine have been fully sensible of this weakness in mankind, and have too successfully grounded upon it their pretensions to fame. I might, indeed, have mentioned Bolingbroke, Hume, Gibbon, Voltaire, Turgot, Helvetius, Diderot, Condorcet, Buffon, De la Lande, and fifty others, all a little cracked.

Be to their faults a little blind,
To their virtues ever kind.

Adams's reply to Jefferson's inquiry.

Education! oh, education! the greatest grief of my heart and the greatest affliction of my life! To my mortification I must confess that I have never closely thought or deliberately reflected upon the subject, which never occurs to me now without producing a deep sigh, a heavy groan, and sometimes tears. My cruel destiny separated me from my children almost continually from their birth to their manhood. I was compelled to leave them to the ordinary routine of reading, writing, and Latin school, academy, and college. John alone was much with me, and he but occasionally.

If I venture to give you my thoughts at all they must be very crude; I have turned over Locke, Milton, Condillac, Rousseau, and even Miss Edgeworth, as a bird flies through the air. The Preceptor I have thought a good book. Grammar, rhetoric, logic, ethics, mathematics can not be neglected. Classics, in spite of our friend Rush, I must think indispensable. Natural history, mechanics, and experimental philosophy, chemistry, etc., at least their rudiments, can not be forgotten. Geography, astronomy, and even history and chronology, though I am myself afflicted with a kind of pyrrhonism in the two latter, I presume can not be omitted. Theology I would leave to Ray, Durham, Nieuwentyt, and Paley rather than to Luther, Zinzendorf, Swedenborg, Wesley, or Whitefield, or Thomas Aquinas, or Wollebius. Metaphysics I would leave in the clouds with the materialists and spiritualists, with Leibnitz, Berkeley, Priestley, and Edwards, and, I might add, Hume and Reed. Or, if permitted to be read, it should be with romances and novels. What shall I say of music, drawing, fencing, dancing, and gymnastic exercises? What of languages, oriental or occidental? Of French, Italian, German, or Russian, of Sanscrit or of Chinese? The task you have prescribed to me of grouping these sciences or arts under professors, within the views of an enlightened economy, is far beyond my forces. Loose, indeed, and undigested must be all the hints I can note.

Might grammar, logic, and rhetoric be under one professor? Might mathematics, mechanics, natural philosophy be under another? Geography and astronomy under a third? Laws and government, history and chronology under a fourth? Classics might require a fifth. Condillac's course of study has excel-

lent parts. Among many systems of mathematics, English, French, and American, there is none preferable to Bezout's course. La Harpe's course of literature is very valuable.

Jefferson's educational views.

The correspondence between Adams and Jefferson brings to light the training which these eminent men had received, and our acquaintance with their public services and their private life suggests to us comparisons between their views of education and enables us to understand how three men so efficiently equipped for their work in life as were Franklin, Adams, and Jefferson, contemporaries, colleagues, and associates in several of the most important public services of the century, advocated educational views in conformity with their own individual experience and education in life. Franklin was self-educated, and his plan of education implies that all others should do likewise. Adams, of ancient New England family, a born politician, a lawyer, a statesman, recognizing different classes in society, is college bred with interests somewhat discordant, and seeking to establish public education at public expense. Jefferson's educational views resemble Adams's rather than Franklin's, for Jefferson, like Adams, a college man, viewed the subject in its legal aspects, though he differed greatly from Adams in his personal interest in agriculture, in mechanics, in invention, and in architecture.

Jefferson's educational views may be gathered from his correspondence, and particularly from many letters written during the last twenty years of his life.

I have long entertained the hope [he writes] that this our native State would take up the subject of education and make an establishment there, with or without incorporation into that of William and Mary College, where every branch of science deemed useful at this day should be taught in its highest degree. With this view I have lost no occasion of making myself acquainted with the organizations of the best seminaries in other countries, and with the opinions of the most enlightened individuals on the subject of the sciences worthy of a place in such an institution. In order to prepare what I had promised our trustees I have lately revised these several plans with attention, and I am struck with the diversity of arrangement observable in them, no two being alike. Yet I have no doubt that these several arrangements have been the subject of mature reflections by wise and learned men, who, contemplating local circumstances, have adapted them to the section of society for which they have been framed. I am strengthened in this conclusion by an examination of each separately, and the conviction that no one of them, if adopted without change, would be suited to the circumstances and pursuits of our country. The example they have set to them is authority for us to select from their different institutions the materials which are good for us, and with them to erect a structure whose arrangement shall correspond with our own social condition, and shall admit of enlargement in proportion to the encouragement it may merit and receive.

Jefferson the eclectic.

After this sensible introduction, which contains a wholesome warning against mere imitation in educational establishments and a proper recognition of peculiar local conditions in every individual foundation, Jefferson proceeds to survey the general field of education and to mark out that particular portion to be occupied by the proposed institution in his immediate neighborhood. He considers the subject under three heads—elementary schools, general schools, and professional schools. Under the first head he observes that it is the duty of a government to see that every citizen is educated according to his condition and pursuits in life. He divides the mass of citizens into the laboring and the learned classes, including under the former agricultural labor and handicrafts and under the latter certain skilled labor and technical knowledge. Elementary schools will suffice for the laboring classes.

Jefferson notes the fact that a plan was once proposed to the legislature of Virginia to divide every county into hundreds or wards, five or six miles square, each ward to have its own schools for the elementary education of the children in reading, writing, arithmetic, and geography. He expresses the hope that this

project, once ineffectually attempted, may be resumed "in a more promising form." Passing to the second head Jefferson remarks that pupils leaving the elementary schools will separate into two classes, for the pursuit of labor and science, respectively. Pupils destined for the latter will go to college, where higher education is afforded by general schools and is specialized in professional schools. The learned class he divides into two sections: First, those destined for professional life; and second, the wealthy, who "may aspire to share in conducting the affairs of the nation, or live with usefulness and respect in the private ranks of life." Both the learned and the wealthy will require the higher education, but the former will need to specialize and pass from the general to the professional schools.

Classification of studies.

Jefferson then attempts to classify the branches of useful science which ought to be taught in the general schools. He groups them under three departments: Language, mathematics, and philosophy. In the first department he arranges languages and history, ancient and modern; grammar, belles-lettres, rhetoric, and oratory, and a school for the deaf, dumb, and blind. "History," he says, "is here associated with languages, not as a kindred subject but on a principle of economy, because both may be attained by the same course of reading if books are selected with that view." This thought, originally advanced by Jefferson as the basis of elementary education, became in the person of George Long, the classical historian, one of the ideal corner stones of the University of Virginia. Under the head of mathematics Jefferson classified the following sciences: Pure mathematics, physico-mathematics, physics, chemistry, mineralogy, botany, zoology, anatomy, and the theory of medicine.

Under philosophy he grouped ideology, ethics, the law of nature and of nations, government, and political economy. By the term "ideology" Jefferson meant simply the science of the human understanding. He borrowed his novel term from a French writer, Count Destutt Tracy, member of the Senate and of the Institute of France, whose treatise on the Elements of Ideology was first published in France in the year 1801, and is reported by Jefferson to have been condemned by Napoleon as "the dark and metaphysical doctrine of ideology, which, diving into first causes, founds on this basis a legislation of the people."[a]

This work, which the present generation would probably condemn on other grounds, made a profound impression upon Jefferson, who wished to establish democracy upon a philosophical basis.

Professional schools.

Jefferson was the first to include professional schools in a plan for an American university. To these schools he believed would come those students who proposed to make learning their profession, and who wished to pursue a particular science with more minuteness and detail than was possible in the college proper, which would give simply a liberal education. "In these professional schools each science is to be taught in the highest degree it has yet attained." Here Jefferson discovers the real university idea, and at the same time the idea of specialization for a definite purpose. "To these professional schools will come," he says, "the lawyer to the school of law; the ecclesiastic to that of theology and ecclesiastical history; the physician to those of the practice of medicine, materia medica, pharmacy, and surgery; the military man to that of military and naval architecture and projectiles; the agriculturist to that of rural economy; the gentleman, the architect, the pleasure gardener, painter, and musician, to the school of fine arts."

Besides the university idea and the thought of these special schools, Jefferson, in his letter to Carr, clearly anticipated the modern idea of technical education.

[a] Jefferson's letter to Colonel Duane, April 4, 1813.

He proposed what he called a "school of technical philosophy," where certain of the higher branches should be taught in abridged form to meet practical wants." "To such a school," he said, "will come the mariner, carpenter, shipwright, pump maker, clock maker, mechanist, optician, metallurgist, founder, cutler, druggist, brewer, vintner, distiller, dyer, painter, bleacher, soap maker, tanner, powder maker, salt maker, glass maker to learn as much as shall be necessary to pursue their art understandingly of the sciences of geometry, mechanics, statics, hydrostatics, hydraulics, hydrodynamics, navigation, astronomy, geography, optics, pneumatics, acoustics, physics, chemistry, natural history, botany, mineralogy, and pharmacy."

In this school of technology Jefferson proposed to group the students in convenient classes for elementary and practical instruction by lectures to be given in the evening, so to afford an opportunity for labor in the daytime. Military exercises were to be required on certain days throughout the entire course for all grades of students. Thus the features of military schools, technological institutes, and modern agricultural colleges were associated with the higher education in a people's university as conceived by Thomas Jefferson.

Of course Jefferson did not expect to realize all at once this educational scheme as proposed to Peter Carr. He urged as a practical beginning the establishment of a general school or college with four professorships, grouping (1) language and history, belles-lettres, rhetoric, and oratory; (2) mathematics, physics, etc.; (3) chemistry and other natural sciences; (4) philosophy, which, in his view, included political science. He said these professorships "must be subdivided from time to time as our means increase until each professor shall have no more under his care than he can attend to with advantage to his pupils and ease to himself." With further increase of resources professional schools were to be added.

Such were the fundamental lines of thought which gave shape to the first project for a university of Virginia in Jefferson's own neighborhood. Like the preliminary drawings of a great artist, these bold outlines have a permanent interest to the student.[a]

Adams, Jefferson, and Franklin compared.

After comparison of the educational views of Franklin, Jefferson, and John Adams, we conclude that the present public-school system of the United States, which is established by the constitutions and laws of the several States, is in conformity with the educational views of Adams. While it can not be affirmed that he was the sole originator of the system of American public schools, it may be said truly that he is the earliest eminent American statesman who incorporated a provision for such public education, not only in his writings on government, but in his political service, and particularly in that clause which he wrote in the constitution of Massachusetts in 1780, providing for a system of education at public expense.

Adams, at least, had the philosophy of education on his side, for he set forth his ideas on the universal principle of the general welfare, approaching the subject from a consideration of the universal character of education; while Franklin approached it from a consideration of the individual, and of the opportunities which are to be derived from education. Adams, therefore, identifying the interests of education and the interest of the masses, stands among those who founded our educational system; Franklin outlined a method adapted to the wants of individuals, but at the same time dependent upon them for its successful operation. He founded no system of education; he did not identify the operation of his educational plans with the needs and the growth of the State. Self-education may be said to be the natural method of education; this was Franklin's plan. Educa-

[a] H. B. Adams; Thomas Jefferson and the University of Virginia, pp. 62-64.

tion at the expense of the State, according to law, so earnestly advocated by John Adams, may be called the conventional system, practicable and advantageous in a country like ours. Jefferson took a somewhat higher ground, recognizing that education must be directed by those technically trained to perform its duties. He studied and compared the educational institutions of Europe before he attempted to found the University of Virginia, and sought to incorporate in that university the best of all that he saw abroad that was adapted to the wants of America. He would found an institution in which the young might pursue not only all general studies, but also an institution which would provide technical instruction for those who would pursue particular studies at great length. If John Adams is the father of the common school and Benjamin Franklin the model of the self-educated man, Thomas Jefferson is the promoter of the university idea in America.

Influence of their educational views.

The influence of the ideas that each of these men advocated is clearly discernible in the educational history of America. We have the public-school system—that is, the education of the masses by the masses, John Adams's idea; we have the technical school and the university, Jefferson's idea; and we have the means of self-education, books, business, factories, libraries, learned societies, nature, and the human soul capable of making use of these opportunities, Franklin's idea.

The American Philosophical Society.

The American Philosophical Society dates from the 25th of May, 1743, when Franklin published his famous prospectus for its establishment. It was incorporated by act of the legislature of Pennsylvania March 15, 1780, as The American Philosophical Society held at Philadelphia for Promoting Useful Knowledge. The language of the act of incorporation describes its functions, "the cultivation of useful knowledge and the advancement of the liberal arts and sciences;" "the prosecution and advancement of all useful branches of knowledge" for the benefit of mankind. The history of this venerable society, the oldest of its kind in the world, is the history of modern science. Franklin was its first president, elected January 2, 1769, and serving until his death.[a]

Last meeting presided over by Franklin.

The American Philosophical Society has enrolled in its membership the most eminent men in all countries since its incorporation. The records of the proceedings of the society show a multitude of useful subjects which it has from time to time considered. The records of the last meeting at which Franklin presided and of the meeting that took notice of his death are as follows:

1789. Oct. 2. (Six present; Franklin presiding.)

The Royal Irish Academy sent their Transactions, Vol. I. Ordered, that the secretaries send in acknowledgment Transactions American Philosophical Society, Vols. I, II.

Thos. Pole, of London, sent through his brother, Ed. Pole, of Philadelphia, a

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[a] He was succeeded by the eminent David Rittenhouse in 1791-1796; Thomas Jefferson, 1797-1815; Caspar Wistar, 1815-1818; Robert Patterson, 1819-1824; William Tilghman, 1825; Peter Stephenson Dupouceau, 1828; Robert M. Patterson, 1845; Nathaniel Chapman, 1846; Robert N. Patterson, 1849; Franklin Bache, 1853; Alexander Dallas Bache, 1855; John Kay Kane, 1857; George B. Wood, 1859; Frederick Fraley, 1880.

Franklin Bache and Alexander Dallas Bache were great-grandsons of Benjamin Franklin. Franklin Bache was distinguished as a chemist, as professor of chemistry in the Jefferson Medical College, as one of the authors of the Dispensatory of the United States, and of many contributions on cognate subjects.

Alexander Dallas Bache resembled his illustrious ancestor. He was a self-educated man, a graduate of West Point, professor of chemistry and natural philosophy in the University of Pennsylvania, an active member of the Franklin Institute, of which he was a zealous and successful promoter, and first president of Girard College. He laid the plans for the Philadelphia High School, and as its first principal organized it, but won his chief fame as the head of the Coast Survey of the United States. His mind, like Franklin's, was interested in all matters of public concern, and he rendered efficient services in a multitude of matters by which his name is intimately associated with many of the most useful enterprises of a private and public nature in the educational affairs of the country.

letter of thanks for election, and "a description and drawing of a remarkable tumor which lately occurred in his practice."

Coal, white vitriol, slate, brick, burnt slate, alum, niter, freestone, and Indian pottery late found in a bank near Washington were presented through Franklin by David Reddick, esq.

P. Young's essay on the Powers and Mechanisms of Nature was presented, through Franklin, by Samuel Mather, of London.

Specimens of the papyrus of Syracuse were presented by Franklin.

1790. April 23. Special meeting. (Nineteen present.)

To consider of some testimony of respect to the memory of the late illustrious president.

An eulogy voted, to "be prepared by one of their members, to be pronounced before this body as soon as may be convenient."

Dr. William Smith and Dr. Rittenhouse "were highest in votes" by ballot "and had each an equal number."

These gentlemen * * * consenting that the said eulogium * * * shall certainly be prepared, it is left to themselves to determine which of them shall deliver it.[a]

The correspondence of the closing years of Franklin's life abounds in references to religious matters and illustrates the interest that was taken in his religious views.

Franklin's creed.

A few days before his death, in reply to a request from his old friend Ezra Stiles, president of Yale College, asking him to give his portrait for the college library, he answered the inquiry as to his own religious opinions:

Here is my creed. I believe in one God, the Creator of the Universe. That He governs it by His providence. That He ought to be worshipped. That the most acceptable service we render to Him is doing good to His other children. That the soul of man is immortal, and will be treated with justice in another life respecting its conduct in this. These I take to be the fundamental points in all sound religion, and I regard them as you do in whatever sect I meet with them.

As to Jesus of Nazareth, my opinion of whom you particularly desire, I think His system of morals and His religion, as He left them to us, the best the world ever saw, or is like to see; but I apprehend it has received various corrupting changes, and I have, with most of the present Dissenters in England, some doubts as to His divinity; though it is a question I do not dogmatize upon, having never studied it, and think it needless to busy myself with it now, when I expect soon an opportunity of knowing the truth with less trouble. I see no harm, however, in its being believed, if that belief has the good consequence, as probably it has, of making His doctrines more respected and more observed; especially as I do not perceive that the Supreme takes it amiss by distinguishing the unbelievers in His government of the world with any peculiar marks of his displeasure.

I shall only add, respecting myself, that, having experienced the goodness of that Being in conducting me prosperously through a long life, I have no doubt of its continuance in the next, though without the smallest conceit of meriting such goodness. * * *

P. S.—I confide that you will not expose me to criticism and censures by publishing any part of this communication to you. I have ever let others enjoy their religious sentiments, without reflecting on them for those that appeared to me unsupportable or even absurd. All sects here, and we have a great variety, have experienced my good will in assisting them with subscriptions for the building their new places of worship; and, as I have never opposed any of their doctrines, I hope to go out of the world in peace with them all."

His death.

As death approached and Franklin's strength failed, his breathing became oppressed, and some one suggested a change of position, that he might breathe easier. Conscious of the change through which he was passing, he said: "A dying man can do nothing easy."

The news of his death was received with sorrow throughout the civilized world.[b] The city of his adoption gave him an honorable burial. Four days after

[a] The eulogy was pronounced by Dr. William Smith.

[b] He died April 17, 1790, at 11 p. m., aged 84 years 3 months and 11 days.

his death his body was laid at rest by the side of his beloved wife in the burial ground of Christ Church, on Arch street, near Fifth.[a]

V.

FOR THE SAKE OF THE WHOLE.

Individualism of the eighteenth century.

The individualism which characterizes Franklin's ideas of culture, and it was also at the basis of his political economy, is lacking in the dominant educational ideas of our time, because the concept of the State has changed since Franklin's day. When the people of the American colonies became the people of the United States, the basis on which the new form of organization was made to rest was the individual. For him the State existed; for him the more perfect Union was formed. To develop and protect his interests governors and legislatures were chosen, and to make his rights secure courts were established and judges appointed.

The cardinal doctrine of the Declaration of Independence is the equality of individuals. All the provisions of the American bills of rights, the most permanent parts of our written constitutions, define the rights and privileges of the individual. Nor was this enthronement of the individual limited to the civil organization of the eighteenth century only; with slight modification, the support of the idea perceptibly lessening, it continued until the middle of the nineteenth century. Not until the industrial revolution of 1860–1865, and the counter industrial revolution which followed, was there, I may say, a beginning in the definition of the rights, privileges, immunities, and functions of the State as in any degree an organism paramount in importance to the individual. As the domination of individualism at the close of the eighteenth century is better understood, we are the more amazed that the people of America were able to organize either Commonwealth or nation. Our amazement diminishes, however, when we reflect that the eighteenth century was a period in which greater attention was given and more importance assigned to the form of the government than to the concept of the State as an organism.

It was a period when the English-speaking people of America changed their form of government from monarchical to democratic. After long familiarity with the monarchical form in England, its people were accustomed, as were Englishmen in America, to associate particular functions with the King, the Lords, and the Commons. In theory and in practice the three estates of the

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[a] The order of the procession was:

All the Clergy of the city, before the Corpse.
The Corpse,
carried by Citizens.
The Pall, supported by the President of the State,
the Chief-Justice, the President of the Bank,
Samuel Powell, William Bingham, and
David Rittenhouse, Esquires.
Mourners,
Consisting of the family of the deceased, with a
number of particular friends.
The Secretary and Members of the Supreme
Executive Council.
The Speaker and Members of the General Assembly.
Judges of the Supreme Court.
And other Officers of Government.
The Gentlemen of the Bar.
The Mayor and Corporation of the City of
Philadelphia.
The Printers of the city, with their Journeymen
and Apprentices
The Philosophical Society.
The College of Physicians.
The Cincinnati.
The College of Philadelphia.
Sundry other Societies together with a numerous and respectable body of Citizens.

realm were checks and balances upon one another, so that the aggregate effect of their joint operation was the conservation of all interests of the English people.

Democratic devices and substitutes.

When the people of America initiated an independent government and made written constitutions they supplied the place of the crown and the peerage with democratic devices by which the three departments of government—executive, legislative, and judicial—should be made and functioned as checks and balances one on another. These devices are now seldom thought of, because long familiarity with their operation has generated mental habits, and indeed has imparted to these devices the functional value so long attributed to the three English estates. These devices are chiefly mechanical arrangements of the factors in the civil formula, different official terms and powers for the two Houses, a different term and a different power for the Executive, the latter consisting of a combination of administrative and legislative authority, as in the exercise of the veto, and still different terms and powers for the judiciary. Thus the longer term of the Senate counterbalances the short term of the House, and possibly its turmoil. The Executive term and the veto power check the possible aggression of the legislative, and the term and emoluments of the judiciary contribute not only to its independence, but also to preserve a check and balance upon the legislative and the Executive.

Changes in the estimate of their value.

In practice these mere mechanics of government are of far less import than was imputed to them during the lifetime of Franklin. Democracy finds its safeguard in men rather than in political mechanics. The phrase "checks and balances" is seldom heard outside of the lecture room. In place of mere devices public opinion restrains and directs public servants. Government in America is government by public opinion. In the eighteenth century it was thought that democratic government could be insured by adopting administrative devices. Then there were no political parties in which the individual was swallowed up. Then individualism was paramount. Franklin's system of self-culture was therefore a phase of the evolution of national education. No one at the close of the nineteenth century is so conspicuous as a self-educated man as was Franklin at the close of the eighteenth. There are always eminent citizens who are largely self-educated, but they rise to eminence not as did Franklin, in many departments of human activity, but usually by reason of their great wealth, obtained by controlling vast industrial combinations. The most eminent self-educated man of the nineteenth century in America was Lincoln, yet it would be unfair to compare him with Franklin. Fulton, Greeley, Andrew Johnson, Roger Sherman, not to mention eminent living Americans, were self-educated, yet save that they were self-taught they can not justly be compared with Franklin. Nor with justice can he be compared with them. Each was an individual, a unit, a self-centered soul, capable of serving the race. Franklin is better known to the world to-day than all the college men of America during the eighteenth century. This fact in no way depreciates the many nor exalts the one.

> But little do or can the best of us;
> That little is achieved through liberty.
> Who, then, dares hold, emancipated thus,
> His fellow shall continue bound? Not I.
> Who live, love, labor freely, nor discuss
> A brother's right to freedom. That is "Why."

Self-culture is self-enfranchisement.

It is the enfranchised man who exalts himself by exalting the race. Franklin is like Lincoln and the rest in evolving a cultured individuality. In him the distinctions of nature were preserved. Too often are they lost in education. He did not sacrifice the means to the end in education. Life was larger than any schoolroom he could have entered. Yet the chief obstacle in the way of popular government is likely to be

the individual. He believes that democracy exists for him; that he is the state; that the elector is tenant in common of the estate of sovereignty. Therefore he easily concludes that the less there is of government the more there is of liberty. Franklin's citizen is not so. Self-culture is self-control, and individual self-control is the peace and the prosperity of the state. Because Franklin is so individualistic, his concept of the state is elusive to many. "Where is the state?" say they, "if the aggregate be only of individuals?" "How can there be a common policy if the individual is the measure of the state?" Franklin would answer: "The enfranchised individual is the highest product of this world, because he is a product of which every man by self-culture can be an example. Even if the father fails to reach the high level of excellence, the son may build higher. Culture habits are hereditary; self-restraint tells in the blood." When the doctrine of the Declaration of Independence is fully applied, Franklin would say, every man is enfranchised; that is, when he is individually self-cultured. Not until a man can fully identify himself is he educated. For this reason education is an evolution, and as we commonly know it, we know it only in single, and often in isolated phases.

It is the man, the individual, that is the determining element in life. Jefferson's chief service to his countrymen was in teaching them that the foundation of government is in men, not in things. Franklin makes unselfishness the chief virtue, therefore his educational process is difficult. Judged wholly by utilitarian ends, unselfishness is the most desirable thing in the world. Unfortunately the prevailing concept of the state leads to other things which largely dominate life. The state has few rights that the individual feels bound to respect. The state, it is too often said, owes a man this or that, a living, a profession, an office, an opportunity, whereas in truth the individual owes these to the state. Franklin sees in the state the joint contribution of sane men. Others, though not all others, see in the state an opportunity for personal advantage.

Franklin's v. Adams's ideas.

Are Franklin's ideas of education antiquated and at present irrelevant? Has the system inaugurated by Adams—education by the state at public expense—produced the highest type of individuals and the perfect state? Do the professional schools, as suggested by Jefferson, train the chief thinkers in each generation? Is there any neglect of the individual in public school education to-day? Are boys and girls trained like an army or taught like citizens?

Changes in population since 1790.

In Franklin's time the population of the United States was almost wholly rural. One person in thirty-three was to be found in a city in 1790, the year when Franklin died. To-day one person of every four of our population is living in a city. Not one thirty-third but one-fourth of our population is urban. In cities then the test of the values of various methods of education will be determined. Are the children in cities taught by groups and masses or individually? Are they habituated to self-culture and to thinking or is the process through which they are passed mechanical rather than a culture process? Are our cities a problem in government that is likely to test the virtue of the republican idea? In cities the greatest liberties are taken with the rights and privileges of citizens. Hardly a city in America owns its franchises. Most of these have been granted to astute individuals, with no reservation compensatory in degree to the city. The inhabitants of cities seem to care the least and know the least about their local government. In the largest cities and in the most ignorant wards devotion to merely partisan selfishness is more excessive than in the rural districts. Yet even in these districts the urban carelessness is gaining entrance. The mechanical methods of a too formal state system of education foster panarchic evils. So much allowance must be made for human nature, it may be said that a tendency should not be construed as a men-

acing evil. A recognized tendency signifies that some more perfect adjustment should be made.

Educational qualifications for the franchise.

In the early years of public school agitation, about 1845, the advocates of State education imputed to it the virtues of a panacea for social and political ills. Education would establish a new order, a régime of intelligence. An educational qualification would insure the State against abuses. New Jersey was the first State to suggest an educational qualification for the electors; New York followed in 1846; it was discussed in Ohio, Massachusetts, and Pennsylvania, but failed to win sufficient support to incorporate it in either the constitutions or the laws. It was suggested freely in the reconstruction of the Southern States, but the suggestion came from those who feared negro domination. Not only did it fail to be included in Southern constitutions and laws, but the conclusion of the whole matter took typical form in a provision of the bill of rights of the constitution of Mississippi of 1868—that no educational qualification should ever be required for any person to become an elector; a provision reversed by a clause of the Mississippi constitution of 1890.

South Carolina in 1895 copied the Mississippi provision of five years before, requiring an elector to be able to read or to explain any provision of the constitution, and made the additional provision that after the 1st of January, 1898, he must be able both to read and to write any section of the constitution, or show that he owns and has paid taxes during the previous year on property within the State assessed at $300 or more. Obviously the educational qualification is measured as an equivalent, politically, to the ownership of property. A property qualification has always been defended as a means of anchoring men to the State.

The conservation of the state.

The qualifications of the elector, at any time in our history, signify how public opinion decides that the state shall be conserved. A man having a fixed residence; possessing real or personal property taxed within the State; able to read or to write or professing belief in a prescribed religious creed, is one who, by the theory of the nature of the State that has obtained from time to time, may be intrusted with the direction of public affairs. Franklin believed in manhood suffrage, but for reasons of expediency thought that only men possessing taxable property should vote.

There is an interesting history connected with the religious-test clause in the constitution of Pennsylvania of 1776, which was made by a convention of which Franklin was president. At the time when the convention was in session in Philadelphia, several eminent clergymen, among whom were Muhlenberg and Provost Smith, of the university, fearing that the State was to be handed over to infidels and atheists, communicated to Franklin their desire to call on him and present a petition, to be handed by him to the convention, requesting it to prescribe a religious qualification for electors and officeholders. Franklin, with characteristic urbanity, replied that he would call on them. Greatly pleased, they drew up a provision which he duly presented. It was a religious test to apply alike to the elector and the elected, but Franklin, who was no friend of religious qualifications for either voters or officials, succeeded in limiting the requirement to members of the assembly, and by eliminating the electors and all other civil officers and magistrates from the operation of the provision, considered that he had made it as harmless as it was possible to do and satisfy the party represented by Smith and Muhlenberg. In a letter to Dr. Priestley he expressed his comfortable sensations that the provision was to affect only the few men who would be chosen to the assembly.

Though the American Commonwealth was founded at a time when the individual was conceived to be at the center of the civil system, experience has taught

us that the conservation of the State rests with the individual, and we are beginning to learn that the safety of the individual depends upon the State. The unreasonableness of an educational qualification for the voter is thought to be established by merely quoting the familiar doctrines of the Declaration of Independence. That organic body, the State, depends upon other resources than taxes for its existence. The functions of the State were obscure in the eighteenth century, and they are now only beginning to be understood. Individualism strictly applied in the State would never establish public institutions other than those of a punitive nature. In this respect the States of the ancient world were individualistic; some of them provided public amusements; none established hospitals, laboratories, or schools for the unfortunate, or asylums, or reformatories. The modern concept of the State is based on the idea that society is organic and the State itself an organ of society.

It may be said that Franklin's plan for self-culture fails to accomplish all the ends that society must accomplish in order to be fully protected; that the State must take the initiative when the individual will not, and, for the safety of all, that the State must suppose that the individual will not. This idea is at the basis of all compulsory schemes of education. It is claimed that advantages of education, though commonly acknowledged, are often remote; indeed, so remote that the State must become the official trustee of childhood and do for the child what the parent or guardian may neglect or refuse to do. Adams prescribes this service of the State not for the child, but for the State itself. The State is best protected when its inhabitants possess a maximum amount of knowledge and virtue, of which an amount, prescribed by State experience, is required of each individual. Thus State education is for the State; self-culture is for the individual. The State profits frequently by the self-culture of individuals, but its administration of the public business is keyed not by the degree of culture in individuals, but by the average intelligence of all the inhabitants.

The chief difficulty in teaching.

The chief difficulty encountered in teaching is the common incapacity of pupils to realize that their studies are at all related to themselves; that in any way they themselves are responsible for themselves; that self-culture is not a task prescribed, but a means and instrument of power. Nor is this incapacity limited to pupils in all grades of public and private schools; it is the difficulty, and sometimes the obstacle, in colleges and universities. Franklin occasionally confesses that he never learned to be orderly, and chiefly because he did not like to be orderly. His dislike of order and orderly habits narrowly escaped developing into laziness. In some men it would have proved a cause of ruin; in Franklin, fortunately, it was hedged in and limited in its effects by other habits and qualities. It seldom happens that an individual is averse to self-culture in some one direction. It is necessary for his welfare as a citizen of a State that he should be cultured in enough directions to make it safe that he be freely at large. Adams's idea is of greater value to society than Franklin's; Franklin's idea is of more value to the individual than Adams's. The two ideas fairly measure two concepts of the State—one that the individual is at the center of the civil system, the other that the State is an organism and the individual is only a part.

Clearly we have left the first idea far behind, and purely for economic reasons. It is not an idea which, strictly applied, with all the allowances that must be made for human nature, will promote the general welfare. The State will gain by men of the Franklin type; it can not perform its functions if it depends solely upon men of that type; it must therefore apply Adams's idea of education, and require of all its inhabitants what many would not do for themselves, and all not so much for the sake of the individual as for the State itself.

But some one may ask, "What education is best?" "Which is of more value,

Franklin's or Adams's idea?" It seems to me that we must first agree on our terms, and I know none so wise here as Plato.

Plato's definition of education.

Then let us not leave the meaning of education ambiguous or ill defined. At present when we speak in terms of praise or blame about the bringing up of each person we call one man educated and another uneducated, although the uneducated man may be sometimes very well educated for the calling of a retail trader, or of a captain of a ship, and the like. For we are not speaking of education in this sense of the word, but of that other education in virtue from youth upward, which makes a man eagerly pursue the ideal perfection of citizenship and teaches him how rightly to rule and how to obey. This is the only training which, upon our view, would be characterized as education; that other sort of training, which aims at the acquisition of wealth or bodily strength, or mere cleverness apart from intelligence and justice, is mean and illiberal, and is not worthy to be called education at all. But let us not quarrel with one another about the name, provided that the proposition which has just been granted hold good, to wit, that those who are rightly educated generally become good men. Neither must we cast a slight upon education, which is the first and fairest thing that the best of men can ever have, and which, though liable to take a wrong direction, is capable of reformation. And this work of reformation is the great business of every man while he lives.[a]

Was Franklin Platonic?

Education, then, is self-culture, self-control, the work of reformation, rightly to rule and rightly to obey. If the ideals of democracy be true (and by democracy must be included popular government in the republican form and monarchical government combined, as is that of England, with popular representation, because to whatsoever degree a government is representative it tends inevitably toward democracy), the education of which Plato speaks is attainable, to some degree, by all sane persons. Mere learning is not and can not be education. All that acquisition of facts to which so many hours of youth are given by force of our common system of public and, indeed, of private education contributes little to the education of the Platonic kind. Acquisition of facts may supplant training; it may utterly fail to teach a man "how rightly to rule and how to obey." The strength of Franklin's idea of education, self-culture, consists in its equivalence to the Platonic definition. The Greek and the American here meet on common ground.

State education must have the Platonic ideal in order to make the perfect state possible. The evolution of the race, of society as part, of the individual as part, is the evolution of the State. Artifice, devices, instruments, systems, these are often tyrants that usurp the rightful sovereign, ideas. The citizen leads the State, not the State the citizen.

The citizen v. the state.

Society is an illusion to the young citizen. It lies before him in rigid repose, with certain names, men, and institutions rooted like oak trees to the center, round which all arrange themselves the best they can. But the old statesman knows that society is fluid; there are no such roots and centers, but any particle may suddenly become the center of the movement and compel the system to gyrate round it, as every man of a strong will, like Pisistratus or Cromwell, does for a time, and every man of truth, like Plato or Paul, does forever. * * * To educate the wise man the state exists; and with the appearance of the wise man the state expires. The appearance of character makes the state unnecessary. The wise man is the state. * * * They only who build on ideas build for eternity; * * * the form of government which prevails is the expression of what cultivation exists in the population which permits it.[b]

Thus, after all, the state is only an idea. Although all compose it, its confines are known only to the few who can compass it in thought. The future of democracy depends upon many elements, conditions, and combinations. Whatever phase of it exists at any time, the state which functions that democracy will have

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[a] The Laws; Jowett's translation, "Dialogues of Plato," Vol. IV, p. 165.

[b] Emerson, Essay on Politics.

a service which it alone can perform, the service of taking care of its own, of perpetuating itself. The self-cultured man, the man who is educated in the Platonic sense, lives, thinks, and moves, and if the state be moral, with little preference for the mere form of government. This independence, like character itself, distinguishes the individual. Plato or Franklin could be content to live under any form of government founded on justice and virtue. Socrates dealt a fatal blow to the state when he obeyed its law and drank the cup of hemlock.

The ideal in education.

In our own country public education needs to concern itself chiefly with maintaining a high ideal. That ideal is the citizen who is capable of rightly ruling, if called to rule, and of rightly obeying, if called to obey. In such an ideal all can find satisfaction, comfort, and encouragement. Whether the boy be some young Franklin, devoted to self-culture, that "work of reformation" which is "the great business of every man while he lives," or whether he be that boy who finds himself in the public school and there is ever ill at ease and takes up the work of the day without interest or understanding; whether the one boy or the other, later in life, when a child but older grown he enters among the responsibilities of manhood, of the state, of society, the perfection of citizenship must still be held up to him as the ideal. Self-culture discloses this ideal, but the demands of social efficiency, realized more clearly now than in Franklin's time, make it necessary for the state to hold up this ideal also. To many the state can only seem an obscure mass of regulations, ordinances, and laws, offering rewards and punishments, but this conception of the state is his who desires chiefly "the acquisition of wealth or bodily strength, or mere cleverness apart from intelligence and justice." In a great measure, therefore, the influence of Franklin on America has been Platonic. The perfection of citizenship is the ideal which he would raise for the people of the Republic.

The eighteenth century idea of the State.

According to the ideas of the eighteenth century the individual was the center of all interests; to promote his welfare was the chief function of education, economy, and government. For him existed the State and the nation. Franklin shows the influence of this dominant idea; indeed he could not escape it. It was formulated in the Commonwealth constitutions; in the National Constitution; in laws, ordinances, and social customs of his day. No one then conceived the State to be an organism.

The organic or modern idea.

It was a compact or agreement among individuals, their creation. The idea which distinguishes the closing thought of the nineteenth century was scarcely born at the close of the eighteenth—that the individual is only a part of the living organism—the State. Social efficiency was practically impossible among a people who, for want of means of transportation, were strangers to one another. Ideas require good roads, and no people can be homogeneous that lacks either. Not until the people of the United States were made neighbors one of another by canals, railroads, telegraph, and telephone lines, and by the associations that these imply, was the idea of the organic nature of the State sufficiently plain to become formulated in constitution of government. "The rights of labor" provides one of the clauses of the declaration of rights of the State of Wyoming, admitted into the Union in 1890—"The rights of labor shall have just protection through laws calculated to secure the laborer proper rewards for his service, and to promote the industrial welfare of the State." And again: "Water being essential to industrial prosperity, of limited amount, and easy of diversion from its natural channels, its control must be in the State, which, in providing for its use, shall equally guard all the interests involved." Provisions of this kind are rare in American State constitutions, though far less rare than they will be during the twentieth century. They signify that it is now recognized that the State as well as the individual has rights, and indeed that, as against the individual, the State has rights

paramount. They imply that we recognize that the State is an organism possessing functions.

Similar provisions, in evidence of the recognition of this idea, may be found in the State constitutions since 1870, defining the obligations of the executive *v.* the legislative and the judiciary, and, twenty years later, those defining the functions obligatory upon administrative officers. Provisions of this kind—and they vary in the degree to which they imply or express the organic nature of the State—were unknown in Franklin's time.

Franklin's economics *v.* the modern.

Political economists now as then talk and write of labor, wages, population, manufactures, value, money, taxation, and trade, but the words and phrases, though in part the same, have unlike meanings. To the modern political economist they signify chiefly functions of society and of the state, not entitled to be exploited by individuals only. Political economy now is the science of human relations; in the time of Franklin it was chiefly an explanation of causes conducing to the wealth of nations and of individuals. Franklin was in no sense a systematic political economist. Though he has much to say, in the aggregate, of the relativity of men and of nations, he measures the whole as an aggregation of individuals rather than as an organism of which the individual is a functional part. Efficiency with him is individual efficiency. Individual economy will be national wealth because each is wealthy; an economist of to-day easily understands how the individuals in the state may have forms of wealth, and yet the state and the individuals be functionally poor. The state or the nation, to Franklin, is an effect, not a cause; a resultant, not a determining factor in life. His political economy is in consequence individualistic, not dynamic, systematic, or organic.

Yet we must not forget that the present conclusions in political economy will suffer, or rather gain, by change, and that the economists of to-day may not fare so well in the opinion of mankind as has Franklin. The economic conclusions of to-day came by way of Franklin, and, as in the case of our ideas of labor, of subsistence and population, and of a standard of living, we are greatly indebted to him. If he were living to-day he would illuminate political economy as he found it, and by investigation and experiment leave it at his death well advanced.

The test of government.

In the direction of government he was far ahead of most of his contemporaries. Indeed, I know of but one, James Wilson, who kept pace with him. He clearly saw and frequently declared that the test of government is administration; indeed that, in an important sense, administration is government. This notion was novel in his day. Both Franklin and Wilson advanced and elaborated it in the Federal Convention, but even there it fell meaningless to many. No conviction wrought out by many years of public life was clearer to Franklin, and he elaborated it in the last great speech of his life, the speech which, undoubtedly, gave us the National Constitution.

Because he believed that the Constitution was administrable, he supported it and urged his colleagues to support it. To him and to Wilson the Constitution was not, as so commonly represented by later writers on the subject, "a fetich." He knew that it contains no mysterious remedies for human folly. Much as Jefferson has been criticised for his lack of admiration of the Constitution, he stands with Franklin and Wilson, believing that the entire instrument is purely administrative. The wisdom of this belief we know, for, because the Constitution is administrable, it has not gone the way of the Articles of Confederation.

Franklin, like Plato, is a citizen of all time. In him we find the old and the new. It was prophetic when he said that he seemed to have projected himself into posterity. Explanations will never be lacking of the secret of Franklin's power. Was it in his self-culture? Was it in his humanity? Was it his love of

truth and his unselfishness? Was it the directness and sanity of his vision? Was it his friendly relations and sympathy with all sorts and conditions of men?

With all, at last, he stands in sane relations. His own life was a reformation, and he had the courage to disclose the process. Thus he is generic and typical. Not all that he did does he commend to others to do. Human nature is not to be taken too literally. He was a man, and that means—limitation. Yet, because Franklin was Franklin, the world will continue to unvail statues of him.

Franklin and Lincoln.

Franklin, Washington, and Lincoln are the three Americans whose faces are best known, and of these Franklin and Lincoln rank among the few great men of all time. Neither was free from the infirmities of genius. Each had calm confidence in the ultimate triumph of right over wrong, of wisdom over folly, of unselfishness over selfishness, and of the reign of justice among all peoples. Each cheered the world by a living faith in immortality, a faith that makes the great figures of the past cast a long light into the future.

If Franklin's ideas of education, economy, and government seem to some primitive, they are at least fundamental. Familiarity with them brings us to friends and good company. It is well for a youth to know well a former age and the great men of olden time. They minister consolation, saying—

Best of strangers, we also are poets, according to our ability, of the best and noblest tragedy; for our whole state is an imitation of the best and noblest life, which we affirm to be, indeed, the very truth of tragedy. You are poets and we are poets, your rivals and antagonists in the noblest of dramas, which true law, and that only, can carry out in act, as our hope is.

The best and noblest life.

The ruler of the universe has ordered all things with a view to the preservation and perfection of the whole, and each part has an appointed state of action and passion; and the smallest action or passion of any part affecting the minutest fraction has a presiding minister. And one of these portions of the universe is thine own, stubborn man, which, however little, has the whole in view; and you do not seem to be aware that this and every other creation is for the sake of the whole, and in order that the life of the whole may be blessed, and that you are created for the sake of the whole, and not the whole for the sake of you.[a]

APPENDIX I.

PROPOSALS RELATING TO THE EDUCATION OF YOUTH IN PENNSYLVANIA.

ADVERTISEMENT TO THE READER.

It has long been regretted as a misfortune to the youth of this province that we have no academy in which they might receive the accomplishments of a regular education. The following paper of hints toward forming a plan for that purpose is so far approved by some public-spirited gentlemen, to whom it has been privately communicated, that they have directed a number of copies to be made by the press, and properly distributed, in order to obtain the sentiments and advice of men of learning, understanding, and experience in these matters; and have determined to use their interest and best endeavors to have the scheme, when completed, carried gradually into execution; in which they have reason to believe they shall have the hearty concurrence and assistance of many who are well-wishers to their country. Those who incline to favor the design with their advice, either as to the parts of learning to be taught, the order of study, the method of teaching, the economy of the school, or any other matter of importance to the success of the undertaking, are desired to communicate their sentiments as soon as may be, by letter, directed to B. Franklin, printer, in Philadelphia:

The good education of youth has been esteemed by wise men in all ages as the surest foundation of the happiness both of private families and of commonwealths. Almost all governments have therefore made it a principal object of their attention to establish and endow with proper revenues such seminaries of learning as might supply the succeeding age with men qualified to serve the public with honor to themselves and to their country.

Many of the first settlers of these provinces were men who had received a good education in Europe, and to their wisdom and good management we owe much of our present prosperity. But their hands were full and they could not do all

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[a] Plato: Laws, Jowett's translation, 817, 903.

things. The present race are not thought to be generally of equal ability; for, though the American youth are allowed not to want capacity, yet the best capacities require cultivation; it being truly with them, as with the best ground, which, unless well tilled and sowed with profitable seed, produces only ranker weeds.

That we may obtain the advantages arising from an increase of knowledge, and prevent, as much as may be, the mischievous consequences that would attend a general ignorance among us, the following hints are offered toward forming a plan for the education of the youth of Pennsylvania, viz:

It is proposed,

That some persons of leisure and public spirit apply for a charter, by which they may be incorporated, with power to erect an academy for the education of youth, to govern the same, provide masters, make rules, receive donations, purchase lands, and to add to their number, from time to time, such other persons as they shall judge suitable.

That the members of the corporation make it their pleasure, and in some degree their business, to visit the academy often, encourage and countenance the youth, countenance and assist the masters, and by all means in their power advance the usefulness and reputation of the design: that they look on the students as in some sort their children, treat them with familiarity and affection, and when they have behaved well and gone through their studies, and are to enter the world, zealously unite and make all the interest that can be made to establish them, whether in business, offices, marriages, or any other thing for their advantage, preferably to all other persons whatsoever, even of equal merit.

And if men may, and frequently do, catch such a taste for cultivating flowers, for planting, grafting, inoculating, and the like, as to despise all other amusements for their sake, why may not we expect they should acquire a relish for that more useful culture of young minds? Thomson says:

'Tis joy to see the human blossoms blow.
When infant reason grows apace and calls
For the kind hand of an assiduous care.
Delightful task! to rear the tender thought,
To teach the young idea how to shoot;
To pour the fresh instruction o'er the mind,
To breathe the enlivening spirit, and to fix
The generous purpose in the glowing breast.

That a house be provided for the academy, if not in the town, not many miles from it; the situation high and dry, and, if it may be, not far from a river, having a garden, orchard, meadow, and a field or two.

That the house be furnished with a library if in the country (if in the town the town libraries may serve), with maps of all countries, globes, some mathematical instruments, an apparatus for experiments in natural philosophy and for mechanics; prints of all kinds, prospects, buildings, and machines.

That the rector be a man of good understanding, good morals, diligent and patient, learned in the languages and sciences, and a correct, pure speaker and writer of the English tongue; to have such tutors under him as shall be necessary.

That the boarding scholars diet together, plainly, temperately, and frugally.

That to keep them in health, and to strengthen and render active their bodies, they be frequently exercised in running, leaping, wrestling, and swimming.

That they have peculiar habits to distinguish them from other youth, if the academy be in or near the town; for this, among other reasons, that their behavior may be the better observed.

As to their studies, it would be well if they could be taught everything that is useful and everything that is ornamental. But art is long and their time is short. It is therefore proposed that they learn those things that are likely to be most useful and most ornamental, regard being had to the several professions for which they are intended.

All should be taught to write a fair hand, and swift, as that is useful to all. And with it may be learned something of drawing, by imitation of prints, and some of the first principles of perspective.

Arithmetic, accounts, and some of the first principles of geometry and astronomy.

The English language might be taught by grammar, in which some of our best writers, as Tillotson, Addison, Pope, Algernon, Sidney, Cato's Letters, etc., should be classics, the styles principally to be cultivated being the clear and the concise. Reading should also be taught, and pronouncing properly, distinctly, emphatically, not with an even tone, which underdoes, nor a theatrical, which overdoes nature.

To form their style they should be put on writing letters to each other, making

abstracts of what they read or writing the same things in their own words, telling or writing stories lately read in their own expressions, all to be revised and corrected by the tutor, who should give his reasons and explain the force and import of words.

To form their pronunciations, they may be put on making declamations, repeating speeches, and delivering orations: the tutor assisting at the rehearsals, teaching, advising, and correcting their accent.

But if history be made a constant part of their reading, such as the translation of the Greek and Roman historians, and the modern histories of ancient Greece and Rome, may not almost all kinds of useful knowledge be that way introduced to advantage, and with pleasure to the student? As

Geography, by reading with maps, and being required to point out the places where the greatest actions were done, to give their old and new names, with the bounds, situation, and extent of the countries concerned.

Chronology, by the help of Helvicus or some other writer of the kind, who shall enable them to tell when those events happened, what princes were contemporaries, and what States or famous men flourished about that time. The several principal epochs to be first well fixed in their memories.

Ancient customs, religious and civil, being frequently mentioned in history, will give occasion for explaining them; in which the prints of medals, baesorilievos, and ancient monuments will greatly assist.

Morality, by descanting and making continual observations on the causes of the rise and fall of any man's character, fortune, and power, mentioned in history; the advantages of temperance, order, frugality, industry, and perseverance. Indeed, the general natural tendency of reading good history must be to fix in the minds of the youth deep impressions of the beauty and usefulness of virtue of all kinds, public spirit, and fortitude.

History will show the wonderful effects of oratory, in governing, turning, and leading great bodies of mankind, armies, cities, nations. When the minds of youth are struck with admiration at this, then is the time to give them the principles of that art, which they will study with taste and application. Then they may be made acquainted with the best models among the ancients, their beauties being particularly pointed out to them. Modern political oratory being chiefly performed by the pen and press, its advantages over the ancients in some respects are to be shown; as that its effects are more extensive, and more lasting.

History will also afford frequent opportunities of showing the necessity of a public religion, from its usefulness to the public; the advantage of a religious character among private persons; the mischief of superstition, and the excellency of the Christian religion above all others, ancient or modern.

History will also give occasion to expatiate on the advantage of civil orders and constitutions: how men and their properties are protected by joining in societies and establishing government; their industry encouraged and rewarded, arts invented, and life made more comfortable; the advantages of liberty, mischiefs of licentiousness, benefits arising from good laws and a due execution of justice. Thus may the first principles of sound politics be fixed in the minds of youth.

On historical occasions questions of right and wrong, justice and injustice, will naturally arise, and may be put to youth, which they may debate in conversation and in writing. When they ardently desire victory for the sake of the praise attending it they will begin to feel the want and be sensible of the use of logic or the art of reasoning to discover truth and of arguing to defend it and convince adversaries. This would be the time to acquaint them with the principles of that art. Grotius, Puffendorff, and some other writers of the same kind may be used on these occasions to decide their disputes. Public disputes warm the imagination, whet the industry, and strengthen the natural abilities.

When youth are told that the great men whose lives and actions they read in history spoke two of the best languages that ever were, the most expressive, copious, beautiful, and that the finest writings, the most correct compositions, the most perfect productions of human wit and wisdom are in those languages which have endured for ages and will endure while there are men; that no translation can do them justice or give the pleasure found in reading the originals; that those languages contain all science; that one of them is become almost universal, being the language of learned men in all countries, and that to understand them is a distinguished ornament, they may be thereby made desirous of learning those languages, and their industry sharpened in the acquisition of them. All intended for divinity should be taught the Latin and Greek: for physic, the Latin, Greek, and French: for law, the Latin and French; merchants, the French, German, and Spanish; and, though all should not be compelled to learn Latin, Greek, or the modern foreign languages, yet none that have an ardent desire to learn them should

be refused; their English, arithmetic, and other studies absolutely necessary being at the same time not neglected.

If the new Universal History were also read, it would give a connected idea of human affairs, so far as it goes, which should be followed by the best modern histories, particularly of our mother country; then of these colonies; which should be accompanied with observations on their rise, increase, use to Great Britain, encouragements and discouragements, the means to make them flourish and secure their liberties.

With the history of men, times, and nations should be read at proper hours or days some of the best histories of nature, which would not only be delightful to youth, and furnish them with matter for their letters, as well as other history, but would afterwards be of great use to them, whether they are merchants, handicrafts, or divines; enabling the first the better to understand many commodities and drugs, the second to improve his trade or handicraft by new mixtures and materials, and the last to adorn his discourses by beautiful comparisons, and strengthen them by new proofs of divine providence. The conversation of all will be improved by it, as occasions frequently occur of making natural observations, which are instructive, agreeable, and entertaining in almost all companies. Natural history will also afford opportunies of introducing many observations, relating to the preservation of health, which may be afterwards of great use. Arbuthnot on Air and Aliment, Sanctorious on Perspiration, Lemery on Foods, and some others, may now be read, and a very little explanation will make them sufficiently intelligible to youth.

While they are reading natural history, might not a little gardening, planting, grafting, and inoculating be taught and practiced, and now and then excursions made to the neighboring plantations of the best farmers, their methods observed and reasoned upon for the information of youth, the improvement of agriculture being useful to all and skill in it no disparagement to any?

The history of commerce, of the invention of arts, rise of manufacture, progress of trade, change of its seats, with the reasons and causes, may also be made entertaining to youth, and will be useful to all. And this, with the accounts in other history of the prodigious force and effect of engines and machines used in war, will naturally introduce a desire to be instructed in mechanics and to be informed of the principles of that art by which weak men perform such wonders, labor is saved, and manufactures expedited. This will be the time to show them prints of ancient and modern machines, to explain them and let them be copied, and to give lectures in mechanical philosophy.

With the whole should be constantly inculcated and cultivated that benignity of mind which shows itself in searching for and seizing every opportunity to serve and to oblige, and is the foundation of what is called good breeding, highly useful to the possessor, and most agreeable to all.

The idea of what is true merit should also be often presented to youth, explained and impressed on their minds, as consisting in an inclination, joined with an ability, to serve mankind, one's country, friends, and family; which ability is, with the blessing of God, to be acquired or greatly increased by true learning; and should, indeed, be the great aim and end of all learning.

APPENDIX II.

CONSTITUTIONS OF THE PUBLICK ACADEMY IN THE CITY OF PHILADELPHIA.

As Nothing can more effectually contribute to the Cultivation & Improvement of a Country, the Wisdom, Riches, and Strength, Virtue and Piety, the Welfare and Happiness of a People, than a proper Education of Youth, by forming their Manners, imbuing their tender Minds with Principles of Rectitude and Morality, instructing them in the dead & living Languages, particularly their Mother-Tongue, and all useful Branches of liberal Arts and Science,

For attaining these great & important Advantages, so far as the present State of our infant Country will admit, and laying a Foundation for Posterity to erect a Seminary of Learning more extensive and suitable to their future Circumstances, An Academy for teaching the Latin & Greek Languages, the English Tongue, gramatically and as a Language, the most useful living foreign Languages, French, German and Spanish: As Matters of Erudition naturally flowing from the Laguages, History, Geography, Chronology, Logick and Rhetorick; Writing, Arithmetick, Algebra, the several Branches of the Mathematicks, Natural & Mechanick Philosophy, Drawing in Perspective, and every other useful

Constitutions
Of the Publick Academy In the City of Philadelphia

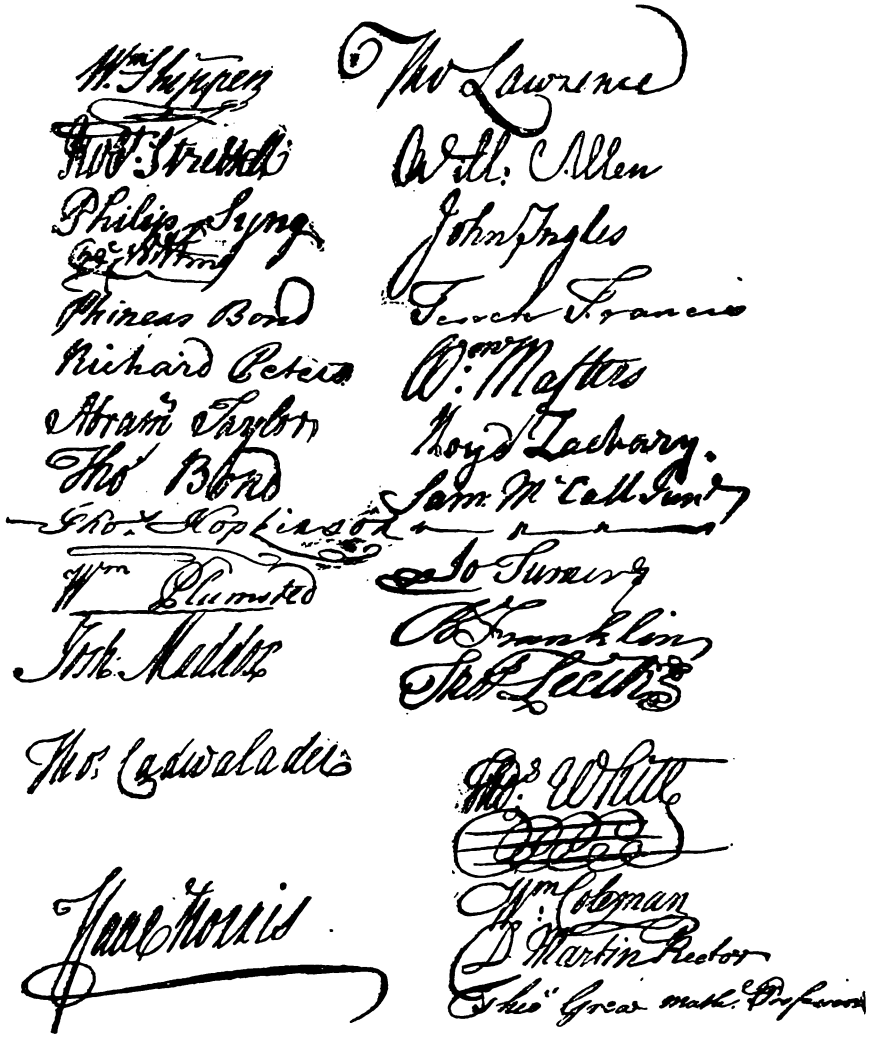
As Nothing can more effectually contribute to the Cultivation & Improvement of a Country, the Wisdom, Riches and Strength, Virtue and Piety, the Welfare and Happiness of a People, than a proper Education of Youth; by forming their Manners, imbuing their tender Minds with Principles of Rectitude and Morality, instructing them in the dead & living Languages, particularly their Mother Tongue, and all useful Branches of Liberal Arts and Science,

For attaining these great & important Advantages, so far as the present State of our infant Country will admit, and laying a Foundation for Posterity to erect a Seminary of Learning more extensive, and suitable to their future Circumstances, An Academy for teaching the Latin & Greek Languages, the English Tongue, gramatically and as a Language, the most useful living foreign Languages, French, German and Spanish: The Matters of Erudition naturally flowing from the Languages, History, Geography, Chronology, Logick and Rhetorick; Writing, Arithmetick, Algebra, the several Branches of the Mathematicks, Natural & Mechanick Philosophy, Drawing in Perspective; and every other useful Part of Learning and Knowledge, Shall be set up, maintained, and have Continuance, in the City

FACSIMILE OF THE BEGINNING OF THE ORIGINAL DRAFT OF THE FIRST CHARTER OF THE UNIVERSITY OF PENNSYLVANIA, 1755.

of

Performances and Lectures of the Scholars, in such Modes, as their respective Masters shall think proper; and shall have Power, out of their Stock, to make Presents to the most meritorious Scholars, according to their several Deserts.



FACSIMILE OF THE SIGNATURES.

Part of Learning and Knowledge, shall be set up, maintained, and have Continuance, in the City of Philadelphia in Manner following Twenty-four Persons, to wit, James Logan, Thomas Lawrence, William Allen, John Inglis, Tench Francis, William Masters, Lloyd Zachery, Samuel McCall Jun., Joseph Turner, Benjamin Franklin, Thomas Leech, William Shippen, Robert Strettell, Philip Syng, Charles Willing, Phineas Bond, Richard Peters, Abraham Taylor, Thomas Bond, Thomas Hopkinson, William Plumsted, Joshua Maddox, Thomas White & William Coleman.

All of the City of Philadelphia, shall be Trustees, to begin, and carry into Execution, this good and pious Undertaking; who shall not for any Services, by them as Trustees performed, claim or receive any Reward or Compensation. Which Number shall always be continued, but never exceeded upon any Motive whatever.

When any Trustee shall remove his Habitation far from the City of Philadelphia, reside beyond Sea, or die, the remaining Trustees shall, with all convenient Speed, proceed to elect another, residing in or near the City, to fill the Place of the absenting or deceased Person.

The Trustees shall have general Conventions once in every Month, and may, on special Occasions, meet at other Times on Notice, at some convenient Place within the City of Philadelphia, to transact the Business incumbent on them, and shall, in the Gazette, advertise the Time and Place of their general Conventions.

Nothing shall be transacted by the Trustees, or under their Authority alone, unless the same be voted by a Majority of their whole Number, if at a general Convention, and if at a special Meeting, by the like Majority, upon personal Notice given to each Trustee, at least one day before, to attend.

The Trustees shall, at their first Meeting, elect a President for one Year, whose particular Duty it shall be when present, to regulate their Debates, and state the proper Questions arising from them, and to order Notices to be given, of the Times and Places of their special Conventions. And the like Election shall be annually made, at their first Meeting, after the Expiration of each Year.

The Trustees shall annually choose one of their own Members for a Treasurer, who shall receive all Donations and Money due to them, and disburse and lay out the same, according to their Orders, and at the end of each Year, pay the Sum remaining in his Hands to his successor.

All Contracts and Assurances for Payment of Money to them, shall be made in the Name of the Treasurer for the Time being, and declared to be in Trust for the Use of the Trustees.

The Trustees may appoint a Clerk, whose Duty in particular it shall be, to attend them in their general and special Conventions; to give Notice in Writing to the Members of the Time, & Place, and Design, of any special Meetings; to register all their Proceedings; and extract a State of their Accounts annually, to be published in the Gazette; for which they may pay him such Salary as they shall think reasonable.

The Trustees shall, with all convenient speed, after signing these Constitutions, contract with any Person that offers, who they shall judge most capable of teaching the Latin and Greek Languages, History, Geography, Chronology, and Rhetorick; having great Regard at the same time to his Polite Speaking, Writing, and Understanding the English Tongue; which Person shall in Fact be, and shall be stiled, the Rector of the Academy.

The Trustees may contract with the Rector for the Term of Five Years, or less, at their discretion, for the Sum of Two Hundred Pounds a Year.

The Rector shall be obliged, without the assistance of any Usher, to teach twenty Scholars, the Latin and Greek Languages, and at the same time, according to the best of his Capacity, to instruct them in History, Geography, Logick, Rhetorick, and the English Tongue; and Twenty-five Scholars more for every Usher provided for him, who shall be entirely subject to his Direction.

The Rector shall upon all Occasions, consistent with his Duty in the Latin School, assist the English Master, in improving the Youth under his Care, and superintend the Instruction of all the Scholars in the other Branches of Learning, taught within the Academy, and see that the Masters in each Art and Science perform their Duties.

The Trustees, shall, with all convenient Speed, contract with any Person that offers, who they shall judge most capable, of teaching the English Tongue grammatically, and as a Language, History, Geography, Chronology, Logick and Oratory, which Person shall be stiled the ENGLISH MASTER.

The Trustees may contract with the English Master for the Term of Five Years, or less, at their Discretion, for the sum of One Hundred Pounds a Year.

The English Master shall be obliged without the assistance of any Usher, to

teach Forty Scholars the English Tongue grammatically, and as a Language; and at the same Time, according to the best of his Capacity, to instruct them in History, Geography, Chronology, Logick, and Oratory; and Sixty Scholars more for every Usher provided for him.

The Ushers for the Latin and Greek School, shall be admitted, and at Pleasure removed, by the Trustees and the Rector, or a Majority of them.

The Ushers for the English School shall be admitted, and at Pleasure removed, by the Trustees and the English Master, or a Majority of them.

The Trustees shall contract with the Usher, to pay him what they shall judge proportionable to his Capacity and Merit.

NEITHER the Rector, nor English Master shall be removed, unless disabled by Sickness, or other natural infirmity, or for gross voluntary Neglect of Duty, continued after two Admonitions from the Trustees, or for committing infamous Crimes; and such Removal be voted by three Fourths of the Trustees; after which their Salaries respectively shall cease.

The Trustees shall, with all convenient Speed, endeavor to engage Persons capable of teaching the French, Spanish, and German Languages, Writing, Arithmetick, the several Branches of the Mathematicks, Natural and Mechanic Philosophy, and Drawing; who shall give their Attendance, as soon as a sufficient Number of Scholars shall offer to be instructed in those Parts of Learning; and be paid such Salaries and Rewards, as the Trustees shall from Time to Time be able to allow.

EACH Scholar shall pay such Sum or Sums, quarterly, according to the particular Branches of Learning they shall desire to be taught, as the Trustees shall from Time to Time settle and appoint.

No Scholar shall be admitted, or taught within the Academy, without the Consent of the major Part of the Trustees in Writing, signed with their Names.

IN Case of the Disability of the Rector, or any Master established on the Foundation, by receiving a certain Salary, through Sickness or any other natural Infirmity, whereby he may be reduced to Poverty, the Trustees shall have Power to contribute to his Support, in Proportion to his Distress and Merit, and the stock in their Hands.

FOR the Security of the Trustees, in contracting with the Rector, Masters and Ushers; to enable them to provide and fit up convenient Schools; furnish them with Books of general Use, that may be too expensive for each Scholar; Maps, Draughts, and other Things, generally necessary, for the Improvement of the Youth; and to bear the incumbent Charges that will unavoidably attend this Undertaking, especially in the beginning; the Donations of all Persons inclined to encourage it, are to be cheerfully and thankfully accepted.

THE Academy shall be open'd with all convenient Speed, by accepting the first good Master that offers, either for teaching the Latin and Greek, or English, under the Terms above proposed.

ALL Rules for the Attendance and Duty of the Masters, the Conduct of the Youth, and the facilitating their Progress in Learning and Virtue, shall be framed by the Masters, in Conjunction with the Trustees.

IF the Scholars shall hereafter grow very numerous, and the Funds be sufficient, the trustees may at their Discretion, augment the Salaries of the Rector or Masters.

THE Trustees, to increase their Stock, may let their money out at interest.

IN general, the Trustees shall have Power to dispose of all Money, received by them, as they shall think best for the Advantage, Promotion, and even Enlargement of this Design.

THE Trustees may hereafter add to or change any of these Constitutions, except that hereby declared to be invariable.

ALL Trustees, Rectors, Masters, Ushers, Clerks, and other Ministers, hereafter to be elected or appointed, for carrying this Undertaking into Execution, shall, before they be admitted to the Exercise of their respective Trusts or Duties, sign these Constitutions, or some others to be hereafter framed by the Trustees in their Stead, in Testimony of their then approving of, and resolving to observe them.

UPON the Death or Absence as aforesaid of any Trustee, the remaining Trustees shall not have Authority to exercise any of the Powers reposed in them, until they have chosen a new Trustee in his Place, and such new Trustee shall have signed the established Constitutions, which if he shall refuse to do, they shall proceed to elect another; and so toties quoties until the Person elected shall sign the Constitution.

WHEN the Fund is sufficient to bear the Charge, which it is hoped thro' the Bounty and Charity of well disposed Persons, will soon come to pass, poor Children shall be admitted, and taught gratis, what shall be thought suitable to their Capacities and Circumstances.

IT is hoped and expected, that the Trustees will make it their Pleasure, and in some Degree their business, to visit the Academy often, to encourage and countenance the Youth, countenance and assist the Masters, and by all Means in their Power, advance the Usefulness and Reputation of the Design: that they will look on the Students as, in some measure, their own Children, treat them with Familiarity and Affection: and when they have behaved well, gone thro' their Studies, and are to enter the World, they shall zealously unite, and make all the Interest that can be made, to promote and establish them, whether in Business, Offices, Marriages, or any other Thing for their Advantage, preferable to all other Persons whatsoever, even of equal Merit.

THE Trustees shall in a Body visit the Academy once a Year extraordinary, to view and hear the performances and Lectures of the Scholars, in such Modes, as their respective Masters shall think proper, and shall have Power, out of their Stock, to make presents to the most meritorious Scholars, according to their several deserts.

N. B. The above Constitutions were signed on the 13th of November, 1749; and are to be carried into Execution as early as may be in the ensuing Year, a considerable Sum being already subscribed for that Purpose by a few Hands; who hope, from the known Publick Spirit of the People of Pennsylvania, that such further Sums as are necessary to be subscribed for perfecting this useful Design, will not be wanting.

THOMAS LAWRENCE	BENJAMIN FRANKLIN
WILLIAM ALLEN	THOMAS LEECH
JOHN INGLIS	WILLIAM SHIPPEN
TENCH FRANCIS	ROBERT STRETTELL
WILLIAM MASTERS	PHILIP SYNG
LLOYD ZACHARY	CHARLES WILLING
SAMUEL McCALL, jr.	PHINEAS BOND
JOSEPH TURNER	RICHARD PETERS
ABRAHAM TAYLOR	JOSHUA MADDOX
THOMAS BOND	THOMAS WHITE
THOMAS HOPKINSON	WILLIAM COLEMAN
WILLIAM PLUMSTED	THOMAS CADWALADER

DAVID MARTIN, *Rector*
THEOPHILUS GREW, *Math. Prof.*

CHAPTER III.

THE COLLEGE-BRED NEGRO.[a]

The following information has been selected (in large part reprinted verbatim) from a report of the results of a social study, made under the direction of Atlanta University, to the Fifth Conference for the Study of Negro Problems, held at Atlanta University,[b] May 29–30, 1900. The report referred to was drawn up by W. E. Burghardt DuBois, Ph. D., corresponding secretary of the conference. Appended to this chapter is an argument by President Bumstead of Atlanta University in favor of the higher education of the negro.

The general idea of the Atlanta Conference is to select among the various and intricate questions arising from the presence of the negro in the South, certain lines of investigation which will be at once simple enough to be pursued by voluntary effort, and valuable enough to add to our scientific knowledge. At the same time the different subjects studied each year have had a logical connection, and will in time form a comprehensive whole. The starting point was the large death rate of the negroes; this led to a study of their condition of life, and the efforts they were making to better that condition. These efforts, when studied, brought clearly to light the hard economic struggle through which the emancipated slave is to-day passing, and the conference therefore took up one phase of this last year. This year the relation of educated negroes to these problems, and especially to the economic crisis, was studied.

Schedules of inquiry, containing 26 questions, were sent out to nearly 2,500 negro graduates; returns more or less complete were received from 1,252. Any graduate who had received the degree of B. A. or B. S. from an institution which had "a course amounting to at least one year in addition to the course of the ordinary New England high school," was considered a college graduate for the purposes of the inquiry.

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[a] See also an article entitled "The education of the negro," by Prof. Kelley Miller, of Howard University, in Vol. 1 of the Report of 1900-01, chap. 16. That article contains a number of tables and some other matter from Dr. DuBois's report not reprinted in this chapter.

[b] Atlanta University is an institution for the higher education of negro youth. It seeks, by maintaining a high standard of scholarship and deportment, to sift out and train thoroughly talented members of this race to be leaders of thought and missionaries of culture among the masses.

Furthermore, Atlanta University recognizes that it is its duty as a seat of learning to throw as much light as possible upon the intricate social problems affecting these masses, for the enlightenment of its graduates and of the general public. It has, therefore, for the last five years, sought to unite its own graduates, the graduates of similar institutions, and educated negroes in general, throughout the South, in an effort to study carefully and thoroughly certain definite aspects of the negro problems.

Graduates of Fisk University, Berea College, Lincoln University, Spelman Seminary, Clark University, Wilberforce University, Howard University, the Meharry Medical College, Hampton and Tuskegee Institutes, and several other institutions have kindly joined in this movement and added their efforts to those of the graduates of Atlanta, and have, in the last five years, helped to conduct five investigations: One, in 1896, into the "Mortality of negroes in cities;" another, in 1897, into the "General social and physical condition" of 5,000 negroes living in selected parts of certain Southern cities; a third, in 1898, on "Some efforts of American negroes for their own social betterment;" a fourth, in 1899, into the number of negroes in business and their success. Finally, in 1900, inquiry has been made into the number, distribution, occupations, and success of college-bred negroes.—*From the Introduction.*

The number of negro college graduates, with their date of graduation, was ascertained to be as follows:

Number of negro graduates.

	From—	
	Negro colleges.	White colleges.
Before 1876	137	75
1876-1880	143	22
1880-1885	250	31
1885-1890	413	43
1890-1895	465	66
1895-1899[a]	475	88
Class unknown	58	64
Total	1,941	390

[a] The report for 1899 is incomplete.

NEGRO GRADUATES FROM WHITE COLLEGES.

In corresponding with white colleges, for the purpose of procuring information bearing upon the subject of the inquiry, most of the colleges addressed confined themselves to furnishing a simple list of graduates; some, however, added information as to the standing and character of their negro students, information which is considered all the more valuable from its having been unsolicited; others made some statement of the conditions regarding the admission of negro students. The following extracts will serve to show the trend of these observations:

From the University of Kansas we learn (January, 1900): "I am pleased to state that this year we have twice as many colored students in attendance at the university as ever before; in all, 28. The rule is that no student shall be allowed to take more than three studies. If he fails in one of the three, it is a 'single failure;' in two of the three, a 'double failure.' The latter severs the student's connection with the university. There are 1,090 students in attendance at the present time. The semiannual examination was held last week, and as a result there are 200 'single failures' and 80 'double failures.' The gratifying part of it is that not one of the 28 colored students is in either number."

From Bates College, Scranton, Me., President Chase writes (February, 1900): "We have had about a dozen colored people who have taken the full course for the degree of A. B. at Bates College, one of them a young woman. They have all of them been students of good character and worthy purpose." One was a "remarkably fine scholar, excelling in mathematics and philosophy;" he was "one of the editors of the Bates Student while in college." Another was "an honest, industrious man of good ability, but of slight intellectual ambition." A third "was a good scholar, especially in mathematics." A fourth graduated "with excellent standing. He was a good all-around scholar, but excellent in the classics." A fifth "acquired knowledge with difficulty." A sixth did work "of a very high order," etc.

The secretary of Oberlin writes (February, 1900) in sending his list: "It is a list containing men and women of whom we are proud."

Colgate University, New York writes of a graduate of 1874 as "a very brilliant student," who "was graduated second best in his class. It was believed by many that he was actually the leader."

A graduate of Colby College, Maine, is said by the librarian to have been "universally respected as a student, being chosen class orator."

Wittenberg College, Ohio, has two colored graduates. "They were both bright girls and stood well up in their respective classes."

A negro graduate of Washburn College, Kansas, is said by the chairman of the faculty to be "one of the graduates of the college in whom we take pride."

The dean of the faculty of Knox College, Illinois, writes of two negro students, Senator Bruce, of Mississippi, and another, who graduated and was remembered because of "his distinguished scholarship."

A black student of Adrian College, Michigan, "was one of the best mathematicians I ever had in class," writes a professor.

Adelbert College, of the Western Reserve University, Ohio, has a negro graduate as acting librarian, who is characterized as "one of the most able men we know;" while of another it is said, "we expect the best."

Lombard University, Illinois, has "heard favorable reports" of its single negro graduate.

The dean of the State University of Iowa writes (December, 1899) of a graduate of 1898: "He distinguished himself for good scholarship, and on that ground was admitted to membership in the Phi Beta Kappa Society. He is a man of most excellent character and good sense, and I expect for him a very honorable future. He won the respect of all his classmates and of the faculty. As president of the Phi Beta Kappa Society I received him into membership with very great pleasure as in every way worthy of this honor. We have three colored people in the university at present; two in the collegiate department and one in law. You are aware that we have but a small colored population in Iowa. In all cases colored young men in the university receive the very best treatment from instructors and students." * * *

Boston University writes of one graduate as "a fine fellow." He is now doing post-graduate work at Yale, and the agent of the Capon Springs Negro Conference writes (November, 1900) that "I continually hear him mentioned in a complimentary way. On the other hand, two negro boys were in the freshman class not long ago and were both conspicuously poor scholars."

Otterbein University, Ohio, has a graduate who "was a most faithful and capable student."

The dean of Dartmouth College, New Hampshire, writes (December, 1899) of their graduates: "The last two or three are hardly established in business yet, but the others are doing remarkably well. These men have been in each case fully equal to, if not above, the average of their class. We have been very much pleased with the work of the colored men who have come to us. They have been a credit to themselves and their race while here and to the college since graduation. I wish we had more such."

The president of Tabor College, Ohio, says of two colored graduates: "They are brainy fellows who have done very much good in the world."

A graduate of Southwest Kansas College "was one of the truest, most faithful and hard-working students that we ever had."

One of the most prominent Methodist ministers in Philadelphia said to the president of Allegheny College, Pennsylvania, speaking of a colored graduate: "Any college may be proud to have graduated a man like him."

The University of Idaho graduated in 1898 a young colored woman of "exceptional ability."

Westminster College, Pennsylvania, has graduated two negroes. "Both were excellent students and ranked high in the estimation of all who knew them."

Of a graduate of Hamilton College, New York, the secretary says: "He was one of the finest young men we have ever had in our institution. He was an earnest and consistent Christian, and had great influence for good with his fellow students. No one ever showed him the slightest discourtesy. On leaving college, he spent three years in Auburn Theological Seminary; was licensed to preach by one of our Northern Presbyteries, and then went to Virginia, near Norfolk, where he built a church and gave promise of great usefulness, when, about two years ago, he suddenly sickened and died." * * *

At the larger colleges the record of negro students has, on the whole, been good. At Harvard several have held scholarships, and one a fellowship; there has been 1 Phi Beta Kappa man, 1 class orator, 2 commencement speakers, 3 masters of art and 1 doctor in philosophy. In scholarship the 11 graduates have stood: 4 good, 3 fair, 2 ordinary, and 2 poor.

At Brown one of the most brilliant students of recent years was a negro; he was among the junior eight elected to the Phi Beta Kappa.

At Amherst the record of colored men has been very good, both in scholarship and athletics. A colored man captained the Amherst football team one year and he is now one of the chief Harvard football coaches.

At Yale and Cornell colored men have held scholarships, and some have made good records.

Among the women's colleges the color prejudice is much stronger and more unyielding. The secretary of Vassar writes (December, 1900): "We have never had but one colored girl among our students, and as no one knew during her course that she was a negro, there was never any discussion of the matter. This young woman graduated from the college, and although it is now well known that she is a negro, the feeling of respect and affection that she won during her

college course has not been changed on the part of those who knew her here. There is no rule of the college that would forbid our admitting a colored girl, but the conditions of life here are such that we should hesitate for the sake of the candidate to admit her, and in fact should strongly advise her for her own sake not to come."

Barnard College, New York, the new woman's adjunct of Columbia, says (December, 1900): "No one of negro descent has ever received our degree, and I can not say whether such a person would be admitted to Barnard, as the question has never been raised; but there is nothing in our regulations that excludes anyone of any nationality or race."

Wells College and Elmira College, New York, both agree in saying that they never have had negro students and "do not know what would be the policy of the board of trustees if such a person should make application for admission."

A prominent Southern institution, the Randolph-Macon Woman's College, of Lynchburg, Va., writes frankly: "We entirely favor the education of negroes to any degree they may wish, but are not prepared to enter upon the work ourselves. We believe that in all boarding schools and colleges the races must, for the good of both, be educated separately."

In the West the sentiment is more favorable. The president of Rockford College, Ill., writes: "I think that no one of negro descent has ever received the bachelor's degree from this college. In 1889–90 such a lady came here from St. Louis. This one was here only about two years, I believe. She afterwards married. Persons of negro descent, if able to meet our requirements, would be received here. So far as I know, however, this is the only such student that we have had; but before she left us, she had made herself very popular with her fellow students."

The trustees of Mills College for women, in Alameda County, Cal., "decided some years ago that it was not best for us to receive such students."

In New England there is usually no barrier, although Mount Holyoke puts the statement negatively: "We do not refuse admission to colored persons, but we seldom have application for this class of candidates."

They have one negro graduate from Smith College, we learn: "Our first colored student graduated last year with the degree of A. B. * * * We also have two students of negro descent in our present senior class. No person is refused admission to Smith on account of color, provided she is able to meet our requirements for entrance. Miss ——— was an excellent student, and very popular."

Wellesley had quite a number of colored students, of whom two graduated. "Both these young women had more than average ability, and one did brilliant work."

Radcliffe College, the Harvard "annex," has two colored graduates, who are well spoken of.

In all Northern institutions there have appeared, from time to time, black students as well as white who lacked ability to do the required work. The negroes of this sort are of course always conspicuous. It is naturally much easier to convince an average American group of a negro's inferior attainments than of any unusual ability in any line. So that one such student has often done more by his failure to form public opinion than several others by their success. Then, too, there has been, in some instances, a tendency to coddle black students simply because they were black; in some cases scholarships have been granted them, and pass marks given which in strict competition they did not earn. Of course these cases are more than balanced by the opposite kind, where the prejudice and unconscious bias of students and instructors have made life so intolerable for some lonely black student that he has given up in despair, or done far poorer work than he might have done. In the older institutions all these phases are now passing away, and the black student is beginning to be received simply as a student, without assumptions as to his ability or deserts until he has given evidence in his work and character.

Besides the negroes who have graduated from these colleges, there has been a large number who have pursued a partial course, but taken no degree. They have dropped out for lack of funds, poor scholarship, and various reasons. Then, too, many institutions having no graduates have promising candidates at present. The registrar of the University of Illinois informs us "that so far no negro has ever been graduated from the University of Illinois. One member of our present senior class is a negro, and he will doubtless be graduated next June. He is a good scholar, and is very much respected in the University. He is this year the editor of the student's paper."

Wabash College, Indiana, "has had frequently colored students enrolled in her classes, but none have completed their course. We have at present two colored students in attendance at college."

Dickinson College, Pennsylvania, "has never conferred a degree upon a negro. We have two at present time in attendance at the College: One, Miss ——, a member of the freshman class, and the other, Mr. ——, a member of the junior class, and one of the brightest scholars and most highly esteemed gentlemen in attendance at our institution."

The universities of Wyoming, Montana, and California, have all had, at one time or another, colored students.

Syracuse University has three negro students now, "especially bright and promising."

The University of Vermont dropped two colored members of the class of 1897 "on account of inability to do the work."

Wheaton College, Illinois, has "had many colored students, and some good ones, but none of them has gained the degree of A. B."

Among the colleges who have never had any negro students it is not easy to learn how many would actually refuse such students. Most of the replies are noncommittal on this point, as in the case of John Hopkins. "No colored man has ever been a candidate for a degree here."

So, too, from Bryn Mawr they write: "President Thomas desires me to acknowledge the receipt of your letter, and to say that no person of negro descent has ever applied for admission to Bryn Mawr College, probably because the standard of the entrance examinations is very high and no students are admitted on certificate."

The attitude of Princeton is thus defined (December, 1900): "The question of the admission of negro students to Princeton University has never assumed the aspect of a practical problem with us. We have never had any colored students here, though there is nothing in the university statutes to prevent their admission. It is possible, however, in view of our proximity to the South and the large number of Southern students here, that negro students would find Princeton less comfortable than some other institutions; but I may be wrong in this, as the trial has never been made. There is, as I say, nothing in the laws of the college to prevent their admission."

In other places, usually smaller Western schools, the attitude is quite cordial. "I am sorry to say that we have no negro graduates as yet," writes Carleton College, Minnesota. Whitman College, Washington, says: "We should be glad to receive any negroes if they were to apply, but there are few in this section of the country." The University of Oregon says the same thing.

To sum up, then: Negroes have graduated from Northern institutions. In most of the larger universities they are welcome and have, on the whole, made good records. In nearly all the Western colleges they are admitted freely, and have done well in some cases and poorly in others. In one or two larger institutions, and in many of the large women's colleges, negroes, while not exactly refused admission, are strongly advised not to apply. The summer schools at Harvard, Clark, and the University of Chicago, have several negro students.

BIRTHPLACE OF COLLEGE-BRED NEGROES.

The birthplace of 646 college-bred negroes is given as follows:

South Carolina	95	Rhode Island	1
North Carolina	80	Connecticut	1
Tennessee	73	Vermont	1
Virginia	60	Colorado	1
Georgia	55	Pennsylvania	17
Mississippi	48	Missouri	12
Alabama	34	Louisiana	12
Ohio	34	Illinois	11
Kentucky	25	District of Columbia	10
Maryland	17	Texas	9
Indiana	4	Kansas	9
Massachusetts	3	New York	5
West Virginia	3	Arkansas	4
Iowa	3	Florida	4
New Jersey	2	Delaware	1
Michigan	2		

In foreign lands:	
Hayti	4
West Indies	3
West Africa	2
Ontario	1
North	30
South	542
West	64
Abroad	10
Total	646

The most interesting question connected with birthplace is that of the migration of colored graduates—that is, where these men finally settle and work. If we arrange these 600 graduates according to sections where they were born and where they now live, we have this table:

Migration of college graduates.

Persons born in—	Are now living in—											
	A.	B.	C.	D.	E.	F.	G.	H.	J.	K.	L.	M.
A. New England	2	1	3	1	1							
B. New York, Pennsylvania, New Jersey	1	10	5	1	1		5	1		1		
C. Delaware, Maryland, Virginia, West Virginia, Kentucky, Tennessee, North Carolina, Missouri, District of Columbia	4	18	148	39	12	4	26	1	1		1	
D. South Carolina, Georgia, Florida, Mississippi, Louisiana, Alabama	3	8	35	159	6	1	26					1
E. Michigan, Wisconsin, Illinois, Ohio		2	7	4	9	1	5					1
F. North and South Dakota, Minnesota, Nebraska, Iowa, Kansas				4		5	2					
G. Oklahoma, Texas, Arkansas, Indian Territory			3	1	4	1	5			1		
H. Canada			2									
J. Africa				2								
K. West Indies		3	3	2			2			2		
L. California, Nevada, Washington, Oregon												
M. New Mexico, Arizona												

This means that of 254 college-bred negroes born in the border States (i. e., Delaware, Maryland, Virginia, Kentucky, Tennessee, North Carolina, Missouri, and the District of Columbia), 148 or 58 per cent stayed and worked there; 39 or 15 per cent went farther South; 26 or 10 per cent went Southwest; 12 or 5 per cent went to the middle West, etc. Or again:

Of 73 college graduates born North, 35 stayed there and 38 went South.

Of 507 college graduates born South, 443 stayed there and 62 went North.

These statistics cover only about one-fourth of the total number of graduates, but they represent pretty accurately the general tendencies so far as our observation has gone. It is therefore probably quite within the truth to say that 50 per cent of Northern-born college men come South to work among the masses of their people at a personal sacrifice and bitter cost which few people realize; that nearly 90 per cent of the Southern-born graduates, instead of seeking that personal freedom and broader intellectual atmosphere which their training has led them in some degree to conceive, stay and labor and wait in the midst of their black neighbors and relatives.

WOMEN GRADUATES.

The number of negro women graduates, not including the graduates of 1899, is as follows:

Oberlin	55	Philander Smith	5
Shaw	21	Iowa Wesleyan	4
Paul Quinn	13	University of Kansas	3
Atlanta	8	Cornell	3
Southland	8	Geneva	2
Rust	7	Leland	1
Claflin	6	University Iowa U	1

Idaho	1	Roger Williams	5
Bates	1	Berea	4
Clarke	1	University of Michigan	3
Straight	1	Wittenberg	2
Branch, Arkansas	1	Wellesley	2
Mount Holyoke	1	Butler	1
Fisk	31	Adrian	1
Wilberforce	19	McKendree	1
Knoxville	10	Virginia Normal and Collegiate	1
Howard	8	Allen	1
Central Tennessee	7	Paine Institute	1
Livingstone	6	Vassar	1
New Orleans	5		

Total women	252
Total men	2,272

Before the war 10 women graduated, as far as we have been able to ascertain; from 1861 to 1869, 36; from 1880 to 1889, 76; 1890 to 1898, 119.

The rapid increase of college-bred women in later years is noticeable, and the present tendency is toward a still larger proportion of women. Twenty-three per cent of the college students of Howard, Atlanta, Fisk, and Shaw were women in the school year of 1898–99. The economic stress will probably force more of the young men into work before they get through college and leave a larger chance for the training of daughters. A tendency in this direction is noticeable in all the colleges, and if it results in more highly trained mothers it will result in great good. Of 100 college-bred women reporting their conjugal condition, one-half had been married, against nearly 70 per cent of the men.

EARLY TRAINING.

There is little in the matter of early training that lends itself to statistical statement, but there is much of human interest. A number of typical lives are therefore appended which show in a general way the sort of childhood and youth through which these college-bred negroes have passed. First as to the men:

Men.

"My early life was spent in the schools of the American Missionary Association. I attended Beach Institute and finally Atlanta University."

"I attended the public schools in Augusta, Ga., and sold papers, brushed boots, and worked in tobacco factories. While in college I taught school in summer time."

"Born in Springfield, Mass., where I attended the public schools, and acted as driver and hotel waiter. I attended Fisk University and during vacations taught school, worked in a sawmill, waited on table, and acted as Pullman porter."

"My parents were old and poor and I worked my way through school and helped to support them by manual labor."

"I came to Texas with my parents about 1876, and attended the Galveston public schools. I then went to college, assisted in part by my parents and in part by my own efforts. The expenses of the last two years were paid by a scholarship which I won by examination."

"I spent most of my youth with my uncle, a merchant in Florence, S. C., where I attended the public school, which was poor. I afterwards worked five years on my father's farm, and finally went to college."

"I attended public schools in Virginia, working in white families morning and night for my board. I then worked my way through a normal course, and finally through Hillsdale College."

"I was a farmer before going to school. My church conference sent me to school. My parents were poor and my mother died when I was but 4 years old."

"I came to Kansas when 9 years old and lived on a farm until I was 20, neither seeing or hearing from any of my relations during that time. In 1871 I went to Oberlin and began work in Ray's Third Part Arithmetic."

"I was born a slave in Prince Edward County, Va. I worked as a farmer and waiter and then went to Hampton Institute. After leaving Hampton I helped my parents a few years and then entered Shaw."

"I sold papers and went to school when a boy; I learned the brick-mason's trade of my father. After graduating from the high school I worked in the printing office of a colored paper, thus earning enough to go to college."

"I was born in Calvert County, Md., being one of 7 children. We lived at first in the log cabin which my father had built in slavery times. Soon we moved away from there and settled on a farm which my father commenced buying on shares. I went to school, worked on the farm, and taught school until I was 22, when I entered Lincoln."

"I was born in Crawford County, Ga. My father moved to Macon, then to Jones County, then back to Crawford County, then to the town of Forsyth, and finally to the State of Mississippi. I finally left home at the age of 16 and roamed about for two and a half years. I saved some money by work on a railroad and started to school."

"My parents, having been slaves, were poor. I was the fifth of 10 children, and the task of educating all of us was a serious one for the family. My parents made every sacrifice, and at 9 years of age I was helping by selling papers on the streets of Pittsburg, and colored papers among the negroes on Saturday. After completing the common schools I worked as elevator boy and bootblack, and finally at the age of 15 was enabled to enter the engineering course of the Western University of Pennsylvania."

"I was born in a stable; my father died when I was 2 years old. I blacked boots and sold sulphur water to educate myself until I was 18."

"My mother and father took me from Alabama to Mississippi, where my father joined the Union Army at Corinth, leaving me with my mother, brother, and sister. We went to Cairo, Ill., and then to Island No. 10. There mother and brother died and my sister sent me to Helena, Ark., in charge of an aunt. My father died during the siege of Vicksburg, and I was sent to the orphanage in Helena, which afterwards became Southland College."

"My father died when I was 5 and my mother when I was 12, leaving me an orphan in the West Indies. At 14 I left home with a white man from Massachusetts. I went to school one year in Massachusetts, then shipped as a sailor and stayed on the sea ten years, and finally returning, started to school again."

"I was born in Alton, Ill., in 1864. In 1871 we moved to Mississippi, and happening to visit my grandfather at Wilberforce, Ohio, I begged him to let me stay there and enter school. He consented, and by housework, taking care of horses, and his help I got through school."

"I was born of slave parents who could neither read nor write. I had but five months' regular schooling until I was 17 years of age. Then I worked my way through a normal school in South Carolina, and thus gained a certificate to teach and helped myself on further in school."

"Father died about my ninth birthday, so I attended the public schools and worked on the farm to assist mother earn a livelihood for herself and the four children. Late in my teens, after three months' day labor upon the farm, railroad, wood chopping, etc., I entered Alcorn with the sum of $20.50. By working there I was enabled to remain in school six years, the last five of which I secured work as a teacher in Wilkerson County. The money I obtained was used by myself, my two brothers, and a sister in common, as from time to time each joined me in college. Mother would accept very little of our earnings for herself, lest we might be deprived of an education."

"I was born and reared on my aged mother's farm near Thomastown, Miss. I began going to a country school at 12 years of age, having learned my A B C's under Uncle York Moss, at his Sunday school, where we used Webster's 'Blueback.' My chances for attending even a country school were meager, for I had to help on the farm. Attending two and four months in the year, I got far enough advanced by the time I was 16 to teach a little and use my earnings in entering, first, Tougaloo and then Alcorn."

"I was reared on a farm and was 16 before I knew my letters and 21 before I spent a month in school."

"In early life I lived with my parents, who were ex-slaves and took great pride in working hard to educate their children. I attended the first Yankee schools established in Savannah. As soon as I could read, write, and figure a little I started a private afternoon school at my home, which I taught."

"I was born a slave. Soon after the fall of Port Royal, S. C., in 1861, three of us escaped from Charleston to Beaufort, and joined the Union forces. We were taken on the U. S. gunboat *Unadilla*. There I was attached to a lieutenant in the Forty-eighth New York Regiment of Volunteers, and remained with him until he was wounded before Fort Wagner. I then went North, attended night school in Portland, Me., and finally entered Howard University."

"I was the fifth child in a family of eleven. My father was a poor farmer and did not believe in education, so my training was neglected until I was able to work and help myself."

"I was born a slave and taken North to an orphanage by Quakers after the war, both my parents being dead. Afterwards I was sent to New Jersey, and then worked on a Pennsylvania farm until I went to Lincoln."

"My father was set free prior to the war and purchased my mother. He died when I was 8, leaving a little home and $300 in gold. My mother was an invalid and we had to work at whatever came to hand, going to school from three to five months a year. At the age of 15 I stopped school and labored and taught a three-months' school at $25 a month. Finally I entered Roger Williams University, working my way through and helping mother."

"Twelve years of my life was spent as a slave. I worked at driving cows, carrying dinner to the field hands, and running rabbits. My master owned 300 negroes, so that boys were not put in the field until they were 18. When I was freed I did not know a letter, but I worked my way through Webster's 'Blue-back' speller."

"I was born the slave of Jefferson Davis's brother and attended contraband schools before the close of the war."

"Mine was the usual life of a boy whose folks were comfortably circumstanced. School was the chief occupation. At 16 I went to sea as a cabin boy, and on returning entered Lincoln."

"I was raised partly on a Mississippi plantation and partly in and near New Orleans. For about two years I was with the Union Army as servant to an officer in a Vermont regiment. I went with him to Vermont, where I attended school and finally entered Dartmouth College."

"I had very little early training, and was apprenticed at the calker's trade from 12 to 16. At the age of 18 I joined the Fifty-fifth Massachusetts Volunteers, and was finally discharged on account of wounds. I then entered the preparatory department at Lincoln."

"Lived in Lebanon, Tenn., until 11 years old, when I joined a company of colored men and went to West Tennessee. I kept books and cooked for the company. I moved the whole family at last to West Tennessee, and bought and paid for a farm by raising cotton and teaching school. I then entered Fisk University, and by teaching and farming during vacations supported myself and two sisters in school."

"The greater portion of my early life was spent in East Tennessee, whither I had been brought away from my parents when only 5 years of age. My master kept me as errand boy about his store and house until the close of the war. By this time, under the tutelage of the white children of the family, I had learned to read. In the summer of 1865 I started out without a cent of money to try my own fortune in the world, working at anything I could find to do. I made considerable money, attended public schools, and finally entered Fisk University."

"Soon after the war my father built a log schoolhouse on a spot given him by his former master. I went to school seven months before my father died, after which I was compelled to go to work to support my widowed mother. At the age of 20 I entered school again."

"Born of a good woman in Mississippi, I left home while the war was raging and went to Alabama. There I finally went into the service of an ex-Confederate general, who sent me to the Burrell School, an institution fostered by the American Missionary Association. Afterwards I went to Tougaloo and Roger Williams."

"I lost my mother when I was only 1 year old. I was then sold as a slave to an aged French couple, who treated me as their child. Then, in 1862, I was sold again, taken to Texas, resold, and finally, when free, returned to New Orleans in 1869. I found my father dead, and so I went North and stayed there until I entered Fisk in 1876. I had had but little schooling up to this time—only what I had picked up at a night school and at an eight-months' free school in Texas."

"I was born in Raleigh, N. C., and emancipated in Pennsylvania in 1830. I went to school and learned the three R's and afterwards went to Ohio and entered Oberlin, working at my trade of gunmaker all through the course. I studied, because I found knowledge was power; I also found that I was a born mechanic. I never had the idea that education would elevate me into any profession whatsoever. My trade occupied my whole mind and thought."

"I was born of slave parents and worked when young in a tobacco factory. I was taught to read by an ex-Confederate soldier. I entered school right after the surrender of Lee and remained till I finished the college course."

"I had the advantage of a father who had a good education, for his time. He was free and able to conduct his business in Augusta, Ga., during slavery time. I quit school and served two years at a trade. A Northern teacher offered to help me finish my education and my parents gave me my time."

"My earliest recollections are of slavery, the perturbed conditions at the beginning and end of the war, the struggle of mother and grandmother under the new conditions, and the assumption of the support of the family by myself at the age of 10 years."

"My parents moved to Providence, R. I., when I was very young. I attended school about five years and night school one winter. Then I learned the barber's trade. During the winter of 1890–91 I decided to prepare myself for work among my people in the South and entered Livingstone College."

"My mother and I were sold away from my father, who lived in South Carolina, and taken first to Mississippi, and then to Banks County, Ga. Here, when I was 6 years of age, my master started me at work in a stable, with the purpose of making me learn the care of horses and become his carriage driver. I was freed in 1865, and then my mother and I walked to Newberry, S. C. (110 miles), and found father again. We were very poor and my parents had to hire me out for a year. Then they decided to send me to school and I went very irregularly from 1866 to 1874. I gained at last a State scholarship in the South Carolina College, but the Republicans, after two years, were forced out of power and the college closed to them. Finally I entered the Atlanta University."

"I was born in Buffalo, N. Y., in 1867, the son of the sexton of a large city church. I passed through the common and high schools of the city, and at the same time worked as office boy and waiter. In 1879 I came South to enter college and prepare for teaching."

"About the close of the war Confederate soldiers stole me from my parents in South Carolina and took me to Georgia. I ran away to Tennessee, where I worked as janitor in a white school and studied at night by the aid of the principal, who was very friendly. He afterwards sent me to Howard University."

"I was born in Richmond, Va., and when 3 years of age was sold with my mother, sister, and brother away from my father and taken to South Carolina. We have never seen father since. My new mistress taught me the alphabet, and after emancipation paid my expenses through school and college."

"I worked my way through college. I was the oldest of eight children, with father bitterly opposed to education, although he had a commanding mind and had heard lectures at the University of Virginia before the war. Have been practically the head of the family for over 12 years, and assisted and encouraged all the children to educate themselves. Five of them went or are going to school."

"My mother died when I was but 2 years old, and I was left to the care of my mother's mistress, who, though a slaveholder, cared for me as though I was her own child, until emancipation, when my father took charge of me and placed me in school under Northern teachers sent South by the Presbyterian board of education."

"I was reared on a farm; then became meat cook on a steamboat during vacation. I served two years and five months as first sergeant Company C, Fifty-fifth Massachusetts Volunteers, during the civil war, and was injured twice, at James Island and Honey Hill engagements. I made out contracts between ex-slaves and former masters in South Carolina in the Freedman's Bureau, under Gen. O. O. Howard, after being disabled."

"Until 15 years old I stayed with my grandparents, and followed the occupation of my grandfather, a gardener. From 15 till 17 I clerked in a colored grocer's store; from 17 till 19 I worked in a colored restaurant, giving my earnings to my grandparents, for they cared for my wants and gave me what little school training I had. My parents were dead. In my 20th year I taught a five months' district school, with the proceeds of which I began a course of study at Wilberforce University."

"My early life, until I was 6 years old, was spent on a large plantation. At that age, father having secured a little home of his own, consisting of 3 acres of land and a log house, I with the family was carried thither. At the age of 10 I entered my first school, where I learned to read and write. The school was a Presbyterian school. During the summer I worked on a farm which father rented. At the age of 12 we moved to Lexington, N. C. I still attended school in winter and worked in a brickyard in summer. At the age of 14 my school days stopped until I was 19 years old. I did hotel work during the intervening years, and taught a three months' country school. At the age of 19 I entered college."

"My early life was spent as most poor boys, at work. I have served in every capacity from a dinner boy to a clerk. Have clothed myself since I reached my 14th year, beginning with earning 25 cents a week, and in two years I commanded a salary of $6 per week. At 18 I was head clerk for a produce firm that did a business of $10,000 a year. This was at Nashville, Tenn."

"I was born on a farm near Chillicothe, Ohio, November 15, 1825. At the age of 4 years I was taken with my parents to Jackson County, where there was a community of colored people; they had settled in close proximity in order to educate their children, because they were debarred from attending the public schools with white children. I attended a select school until 14 years of age."

"My first school-teacher was Mr. Turner, who was the colored Congressman from Alabama. His school was destroyed by Kuklux while I was attending it. Next attended Freedman's Bureau school and Swayne school in Montgomery, Ala. I attended Storr's, in Atlanta, and taught school when 15 years old; entered Atlanta University in 1874. Taught school during vacations."

"Born in Yazoo County, Miss., 6 miles from Yazoo City. I was taught my letters by my father. He died in 1866, and left mother with nine children, six sons and three daughters, three younger than myself. Desiring her children to have educational advantages, mother removed to Vicksburg in December, 1866. Here I entered the United Presbyterian mission school. I attended five years, sometimes day school and sometimes night school, as circumstances permitted, being largely dependent upon myself for support. I often had to hire out to earn money with which to purchase books and clothes, but when I hired out in the day I attended school at night. I taught school 1871–72. Was paying and collecting teller in Vicksburg branch of the Freedman's Savings Bank 1873–1875. Taught school 1875–76. Entered preparatory department of Oberlin September, 1876; admitted to college 1879. Matriculated at Dennison University in 1880, graduating in 1884. Though a slave I always had love for books and craved learning, in which I was much stimulated by mother, who, though unable to render me any financial assistance, gave all moral and prayerful help."

"Father was in good circumstances, so my opportunities for advancement were as fair as those of the average colored boy. I attended the public school of my native town until 17 years of age, then I went to Straight University, New Orleans, La., graduating from the classical course in 1881. My home surroundings were favorable to success. I had an excellent father, who is still living; my mother, whose memory I can not too greatly reverence, has been dead for many years. Their teachings, example, and influence have molded my character. Whatever success I have had I owe to them."

Women.

"I was born on a farm in Ohio, and lived there until I was 16. My father died when I was 12 and I had to provide for myself. At the age of 16 I taught a country school and saved $100. With this I went to Oberlin, and went through by teaching and working."

"I am an African Methodist preacher's daughter, and from my 10th until my 15th year we were continually traveling over the State. Finally we came to Atlanta, where I stayed till I finished school."

"Lived a short time in Virginia, some time in Ohio, but principally in Missouri. Attended public schools in Macon, Mo., until the age of 15, when I went to Lincoln Institute for one year and Oberlin for five years."

"Was born and schooled in Philadelphia during the dark days of slavery. Was intimately associated with the work of the 'underground railroad' and the anti-slavery society. I was sent to Oberlin in 1864."

"My early life was spent at my home at Shoreham, Vt., where I attended Newton Academy. In the fall of 1891 I entered Mr. Moody's school at Northfield, Mass., graduating as president of my class. I then entered Middlebury College, Vermont."

"My father was route agent between Norfolk and Lynchburg, Va. Both of my parents had some education and were careful to send their children to school. I started in the public schools at 7."

"I went to school at Monroe, Mich., until a female seminary was opened there from which colored children were barred. I then went to Oberlin."

"My father was a creole and my mother a free negro woman. We moved from Mobile, Ala., to Wilberforce, Ohio, where I was reared. My parents were devoted Christians and were blessed with the comforts of life. My father had a fine collection of books."

"At a very early age I assumed the responsibility of housekeeper, as my mother died and I was the oldest of a family of five; hence I labored under many disadvantages in attending school, but nevertheless I performed my household duties, persevered with my studies, and now I feel that I have been rewarded."

"My mother and I 'took in' washing for our support and to enable me to get an education. After finishing the public schools of Jacksonville, Ill., I was supported four years in college by a scholarship."

"My early life was spent in Darlington, S. C. I did not attend the public school until I was a large girl, but was taught at home, first by my mother, then by a private teacher. When the public school was graded, in 1889, I entered the high-school course."

"While a schoolgirl I taught persons living out in service, going into the premises of some of the most prominent white people in New Orleans. I always kept a large class of night pupils at the same time. I paid my tuition out of these earnings."

OCCUPATIONS.

The most interesting question, and in many respects the crucial question to be asked concerning college-bred negroes is: Do they earn a living? It has been intimated more than once that the higher training of negroes has resulted in sending into the world of work men who can find nothing to do suitable to their talents. Now and then there comes a rumor of a colored college man working at menial service, etc. Fortunately the returns as to occupations of college-bred negroes are quite full—nearly 60 per cent of the total number of graduates.

This enables us to reach fairly probable conclusions as to the occupations of college-bred negroes. Of 1,312 persons reporting there were:

	Per cent.
Teachers	53.4
Clergymen	16.8
Physicians, etc	6.3
Students	5.6
Lawyers	4.7
In Government service	4
In business	3.6
Farmers and artisans	2.7
Editors, secretaries and clerks	2.4
Miscellaneous	.5

Over half are teachers, a sixth are preachers, another sixth are students and professional men; over 6 per cent are farmers, artisans, and merchants, and 4 per cent are in Government service.

These figures illustrate vividly the function of the college-bred negro. He is, as he ought to be, the group leader, the man who sets the ideals of the community where he lives, directs its thought, and heads its social movements. It need hardly be argued that the negro people need social leadership more than most groups. They have no traditions to fall back upon, no long-established customs, no strong family ties, no well-defined social classes. All these things must be slowly and painfully evolved. The preacher was even before the war the group leader of the negroes, and the church their greatest social institution.[a] Naturally this preacher was ignorant and often immoral, and the problem of replacing the older type by better educated men has been a difficult one. Both by direct work and by indirect influence on other preachers and on congregations the college-bred preacher has an opportunity for reformatory work and moral inspiration the value of which can not be overestimated. The report of the Atlanta conference on "Some efforts of American negroes for their own social betterment" shows the character of some of this work.

It has, however, been in the furnishing of teachers that the negro college has found its peculiar function. Few persons realize how vast a work, how mighty a revolution has been thus accomplished. To furnish five millions and more of ignorant people with teachers of their own race and blood in one generation was not only a very difficult undertaking but a very important one, in that it placed before the eyes of almost every negro child an attainable ideal. It brought the masses of the blacks in contact with modern civilization, made black men the leaders of their communities and trainers of the new generation. In this work college-bred negroes were first teachers and then teachers of teachers. And here it is that the broad culture of college work has been of peculiar value. Knowledge of life and its wider meaning has been the point of the negro's deepest ignorance, and the sending out of teachers whose training has not been merely for bread-winning, but also for human culture, has been of inestimable value in the training of these men.

In earlier years the two occupations of preacher and teacher were practically the only ones open to the black college graduate. Of later years a larger diversity of life among his people has opened new avenues of employment. The following statistics of occupations according to the year of graduation illustrate this partially:

Occupation.	Before 1870.	1870–1879.	1880–1884.	1885–1889.	1890–1894.	1895–1898.	Total.
Teachers	10	65	74	159	179	214	701
Clergymen	5	38	26	56	56	31	212
Editors	1	2	1	3	1	1	9
Lawyers	2	5	11	14	23	7	62
Gunmakers	1						1
Miners	1						1
Merchants	1	1	14	9	13	5	43
Physicians	1	8	13	16	31	7	76
Druggists		2			2		4
Clerks and secretaries		1	1	5	4	11	22
Elocutionists		1					1
United States civil service		12	8	15	13	2	50
Farmers		2	5	7	6	6	26
Real estate dealers		1		2		1	4
Matrons		1			1		2
Dentists		1		1		1	3
Engineers		1					1
Missionaries		3	3		1	2	9
Students			3	4	14	53	74
Printers			1			2	3
City civil service				1			1
State civil service					2		2
Librarian					1		1
Tailor						1	1
Draftsman						1	1
Hotel work						1	1
Carpenter						1	1

A study of present and previous occupation gives a still deeper insight into the problem of work. For instance, the following number of persons have never had but one occupation; they began as teachers and are still teaching, or as preachers and are still preaching:

[a] Cf. The New World, December, 1900, article on "Religion of American negro."

Persons who have never changed occupation.

Teachers	315	Editors	3
Clergymen	106	Artisans	3
Lawyers	26	United States civil service	3
Physicians	24	Clerks and secretaries	3
Students	15	Dentists	2
Farmers	7	Hotel work	1
In business	7		

Let us now add to these such persons as have changed occupations once. In the following table the period of study necessary in preparing for a profession is not considered a different occupation.

Previous and present occupations of persons who have had but two successive occupations. (Showing also persons who have had but one occupation.)

Present occupation.	Previous occupation.							
	Teachers.	Clergymen.	Students.	Farmers.	Clerks and secretaries.	In business.	United States civil service.	Physicians.
Lawyers	11				1	2	1	1
Teachers	(315)	18		6	7	9	12	
In business	7					(7)		
Clerks and secretaries	5	1	1		(3)			
Farmers	4	1		(7)		1	1	
Clergymen	26	(106)			1		1	
Real estate agents	2		1		1			
Physicians	9				1	1		(24)
Druggists						1		
Students	7	2	(15)		1		2	
United States civil service	12	1	1	1			(3)	
City civil service			1					
Editors	1		1					
Artisans	3							
Changed work	87	23	5	7	12	14	17	1
Did not change	315	106	15	7	3	7	3	24
Total	402	129	20	14	15	21	20	25

Present occupation.	Previous occupation.							Total number reporting.
	Lawyers.	Editors.	United States Army.	Dentists.	Artisans.	Matron.	Menial work.	
Lawyers	(26)						1	43
Teachers	4	2	1		2	1	1	378
In business							1	15
Dentists				(2)				2
Clerks and secretaries	2				1		1	14
Farmers	1							15
Clergymen		1						135
Real estate agents								4
Physicians							1	36
Druggists								1
Students							1	28
United States civil service								18
City civil service								1
Editors		(3)						5
Artisans					(3)			6
Menial work							(1)	1
Changed work	7	3	1		3	1	6	187
Did not change	26	3		2	3		1	515
Total	33	6	1	2	6	1	7	702

Many interesting things may be noted in the above table. For instance, 48 lawyers report; of these, 26 started on a law course immediately after graduation, finished it, went to practicing, and are still engaged in that work; 11 taught before reading law, 2 were in business, and 4 in other employments, from which

they turned to law. There are reservations to be made, of course, in interpreting these figures; some persons report a few months of teaching as a "previous occupation," while others ignore it; some have not changed occupations, because being young graduates they have not given their present vocation a sufficient trial. Nevertheless, with care in using, the table has much to teach. We find that the profession of teaching is a stepping stone to other work; 87 persons were at first teachers and then changed, 11 becoming lawyers, 7 going into business, 26 entering the ministry, 12 entering the United States civil service, etc. Seven have at various times engaged in menial work, usually as porters, waiters, and the like, but all but one man working in a hotel have done this only temporarily. It is quite possible that others who are engaged in such work have on this account sent in no reports. We see in this way that of 700 college-bred men over 500 have immediately on graduation found work at which they are still employed. Less than 200 have turned from a first occupation to a second before finding apparently permanent employment.

Making all allowances for the gaps in these statistics and some bias on the part of those reporting, it seems fair to conclude that the majority of college-bred men find work quickly, make few changes, and stick to their undertakings. That there are many exceptions to this rule is probable, but the testimony of observers, together with these figures, makes the above statement approximately true.

GRADUATES OF A SINGLE TYPICAL COLLEGE.

It might be well here to turn from the more general figures to the graduates of a single representative institution. A graduate of Dartmouth College who has been in the work of educating negro youth for over thirty years writes as follows in a small publication which gives the record of Atlanta University graduates, including the class of 1899:

"This leaflet covers an experience of about a quarter of a century of graduating classes. It will tell of the work of only the graduates of Atlanta University, all of whom have been kept under the watchful eye of their alma mater. It would be difficult to trace the careers of the thousands of others who did not graduate but who have attended the institution for a longer or shorter period, although many of them are known to have made good use of their meager attainments and some are occupying prominent positions. If it were asked why no larger percentage of the students have obtained diplomas or certificates of graduation a sufficient answer would be found in the one word, 'poverty.' Their parents have been too poor to spare them from home or to pay their expenses at school and they themselves have been utterly unable to find any employment sufficiently remunerative to permit them to keep on and graduate within a reasonable limit in time. Probably the world can not show instances of greater sacrifices by parents or greater pluck, persistency, and self-denial of students than are to be found among the patrons and pupils of Atlanta University.

"While the 94 graduates from the college department represent only a small portion of the work done by the university, they represent a very important part of that work, as will be evident from a statement of the positions they occupy and the work they are doing.

"Of these 94 graduates 12 have died, and it seems to the writer of this leaflet as rather remarkable that only 1 has died during the four years since a similar leaflet was written. Of the 82 now living 11 are ministers, 4 are physicians, 2 are lawyers, 1 is a dentist, 43 are teachers, 1 is a theological student, 1 is studying at Harvard University and another at the University of Pennsylvania, 10 are in the service of the United States, 6 in other kinds of business, and 2 are unemployed.

"Three of the ministers are pastors of Congregational churches in the cities of Chattanooga, Tenn.; Selma, Ala., and Savannah, Ga.; two are pastors of Baptist churches in Augusta, Ga., and Charleston, S. C.; two of Methodist churches in Griffin, Ga., and Portsmouth, Va.; one is chaplain of the Tuskegee Normal and Industrial Institute and dean of its Bible school; another is secretary of the International Sunday School Convention; another is the general secretary of the Baptist negro churches in Georgia, and another is presiding elder of the African Methodist Episcopal churches in Sierra Leone, Africa. All the churches named are centers of great power and wide influence. Some of these ministers have made addresses in national and international assemblages, one is a fellow of the Royal Geographical Society, and one has had the unique pleasure of being a member of the board of education in a large Southern city for eleven successive years.

"Many of the teachers are holding high positions. Eleven are principals of

public schools and three of high schools. Others are designated as follows: Professor of Latin and Greek in Clark University, Atlanta, Ga.; teacher of music in Savannah, Ga.; president of the State Industrial College of Georgia; principal of Howard Normal School, Cuthbert, Ga.; principal of Normal School, Oakland, Tex.; professor of Greek in Morris Brown College, Atlanta, Ga.; vice-principal of Normal School, Prairie View, Tex.; principal of Knox Institute, Athens, Ga.; superintendent of the industrial department in Biddle University, Charlotte, N. C.; professor of modern languages, history, and pedagogy, and vice-president in Lincoln Institute, Jefferson City, Mo.; president of the Florida Baptist College, Jacksonville, Fla.; professor of natural science in the State Normal School, Frankfort, Ky.; principal of the Georgia Normal and Industrial Institute, Greensboro, Ga.; principal of Walker Institute, Augusta, Ga.; superintendent of mechanical department of Knox Institute, Athens, Ga.; teacher of science in the J. K. Brick Normal and Agricultural School, Enfield, N. C.; assistant superintendent of the mechanical department in Tougaloo University, Tougaloo, Miss.

"The four physicians are located in Denver, Colo.; St. Joseph, Mo.; Savannah, Ga., and Chicago, Ill. All of them were among the very first in their classes in the medical schools that they attended.

"The two lawyers are practicing severally in Boston, Mass., and Augusta, Ga., and are successful in their profession. One is a master in chancery by appointment of the governor of his State. The one dentist lives in Atlanta and has an extensive practice.

"One of these graduates was a lieutenant in the Army during the Spanish war and is now a captain of United States Volunteers, serving at Manila. Another was paymaster with the rank of major.

"Several of the graduates who are clerks in the United States service in Washington have taken a full course in law or medicine. And when it is considered that this has required several hours of hard work in the evening after a full day at the office, for months and years, one can understand that they have grit and perseverance. Then three at least have been mail agents on railroads under four successive administrations, and have successfully passed the severe examinations required and conquered the violent opposition that has arisen against them from various sources.

"The peculiar conditions existing in the South have prevented these graduates from becoming prominent in political affairs. Yet one of them has been a member of three successive national Republican conventions and another has represented his county in the Georgia legislature, while a third has served two terms in the Texas legislature, being elected by the aid of the votes of Southern white men in a predominantly white community. * * * His most conspicuous service has been rendered to the negro farmers of his State. This has been done through the organization of a farmers' improvement society with many branches, whose members are pledged to become landowners, to diversify their crops, to improve and beautify their homes, to fight the credit system by buying only for cash on a cooperative plan, and to raise their own supplies so far as possible. The fact that he can report to-day 86 branches of his society scattered over the State of Texas with 2,340 members, who have bought and largely paid for 46,000 acres of land, worth nearly half a million dollars, is a valuable illustration of what one negro with high ideals and an earnest purpose can accomplish for the economic and material advancement of his race.

"Several graduates have done considerable newspaper work, and many sermons and addresses delivered by them have been published. At least two publications have been highly commended by the press. Of President Richard R. Wright's Historical Sketch of Negro Education in Georgia the Journal of Education says: 'And it is just this that makes his story so valuable and forces one to read it straight through from beginning to end, which is not the way books and pamphlets are usually read in newspaper offices.' And of Prof. William H. Crogman's Talks for the Times the New York Independent says: 'The author speaks for his race and speaks in strong, polished English, full of nerve and rich in the music of good English prose.'

"And these graduates are not fickle and unstable, but retain their positions year after year, doing faithful, earnest, and patient service. The length of the pastorates of the ministers has been far above the average, and one of the teachers is completing his twenty-fourth year in the same institution.

"Do not these simple statements impress their own lessons? Should they not help to silence the sneers against Latin and Greek and higher education for negroes? Could less than a college course have fitted most of these men and women so well for the responsible positions they are occupying and the work they

are doing as pastors, professors, principals, physicians, editors, teachers, Sunday school superintendents, home builders, and leaders of their people? If half of them had failed to fill the place for which their education ought to have prepared them, even then their teachers and friends would not have been disheartened. But almost none have failed to meet reasonable expectations. This record of the college graduates is full of encouragement and inspiration."

THE WORK OF TEACHERS.

A glance at the work done by negro college graduates in different fields can be but casual, and yet of some value. The teachers we asked to estimate roughly the pupils they had taught. Some answered frankly that they could not, while others made a statement, which they said was simply a careful guess. From these estimates, we find that 550 teachers reporting think they have taught about 300,000 children in primary grades and 200,000 in secondary grades. From this we get some faint idea of the enormous influence of these 700 teachers and the many other college men who have taught for longer or shorter periods.

OTHER PROFESSIONS.

Outside the work of teachers, the chief professions followed are the ministry, law, and medicine. In most cases a regular professional course is pursued after the college course is finished, in order to prepare for the profession. The chief theological schools are Biddle, at Charlotte, N. C.; Howard, at Washington, D. C.; Gammon, at Atlanta, Ga.; Straight, at New Orleans, La.; Payne, at Wilberforce, Ohio; Lincoln, in Pennsylvania, and Union, at Richmond, Va. These institutions and others have turned out large numbers of ministers, until the supply to-day is rather more than the demand, and the number of the students is falling off. The work of replacing the ordinary negro preachers by college-bred men will go on slowly, but it will require many years and much advance in other lines before this work is finished. Some colored men have gone to Northern theological schools, usually to the Hartford Theological School, Newton Seminary, and Yale University. The leading negro ministers to-day are not usually college-bred men; still a large number of the rising ministers are such, and the influence of the younger set is widespread.

There are comparatively few negro law schools, those at Shaw University and Howard being practically the only ones. There has been a good deal of contempt thrown on the negro lawyer, and he has been regarded as superfluous. Without doubt to-day lawyers are not demanded as much as merchants and artisans, and they have often degenerated into ward politicians of the most annoying type. At the same time there has been a demand for negro lawyers of the better type. The negroes are ignorant of the forms of law, careless of little matters of procedure, and have lost thousands of dollars of hard-earned property by not consulting lawyers. In criminal cases in the South, where public opinion would support and protect in many cases the innocent but unfortunate white, it would allow the negro to go to the corrupting influence of the chain gang. Such practice a white lawyer would not care to follow, because of the prejudice of his clients. Where public opinion sets strongly against a negro suspect, it is very difficult to get a white lawyer to make more than a perfunctory defense, even if convinced of the man's innocence. His standing in the community would be seriously jeopardized if he showed too much zeal. There is, therefore, a distinct place for the black lawyer, but one hard to fill, with small and uncertain income in most cases. Here and there are exceptions, especially in the North. In Boston, for instance, there are four or five colored lawyers who make fair incomes, largely from white practice—foreigners, Jews, Italians, and some few Americans. In Chicago there are two or three colored lawyers with large incomes, and a host who make a living.

Some of the reports from lawyers are of interest:

A Memphis lawyer who has practiced for twenty-five years says: "I can not complain of the treatment I have received at the hands of both bench and bar."

A lawyer of Vicksburg, Miss., says: "There are two colored lawyers here in bar of about fifty. I do not enjoy any considerable white practice, but get my share from my race."

A Kentucky lawyer writes: "In my profession I am succeeding fairly well. My experience with the whites in all sections is that the white man looks upon himself as white and you as black."

A South Carolina man says: "As a rule white lawyers appear friendly; some will associate in cases with colored lawyers. The country white, however, who

sits on the jury is usually ignorant and prejudiced. When the jury is intelligent the chances are better. I am doing fairly well."

A very successful Tennessee lawyer reports his collections in 1899 as amounting to over $4,000.

A Nashville lawyer writes: "I know of no special success attending my practice. I am making a living out of it."

A North Carolina practitioner says: "I handle real estate for both white and colored. I have a paying practice in all State courts. My clients are all colored."

From the North the character of the replies differs somewhat. "My practice is largely amongst the whites," says a Minnesota lawyer. From Chicago come several reports: "As a lawyer of six years' practice here, I have no reason to complain. My clients are about evenly divided between the two races." "In my practice as a lawyer for the past seven years I have done general law practice. Nine-tenths of my patronage from point of emolument has been and is from white clientage. I do considerable business for Irish people, a few Germans, many Poles and Bohemians, and many of English descent." "My clients are nearly all white. When people here want a lawyer, they want a man that can do their work, and they don't consider the color of his skin."

From Buffalo, N. Y., a lawyer writes: "My practice has not yet assumed proportions sufficiently extensive or varied to warrant me in making deductions upon present success. I can see no reason, however, why a colored man of high character and the requisite qualifications should not succeed in the practice of law. Of the white man's skeptical attitude toward the professional negro's ability and training one has frequent experiences at once amusing and disgusting."

Another writes: "My experience as a lawyer in Buffalo has been pleasant, and in my intercourse with the lawyers, almost exclusively white, I have had no cause for complaint, being apparently respected by bench and bar. I have been successful in winning cases, but have had less success in collecting fees."

A Minnesota lawyer, graduated in law in 1894: "Was appointed clerk of criminal court, and resigned December 21, 1898, to serve as a member of the Minnesota house of representatives. Am still a member, and have been practicing law. The district I represent—the Forty-second—is an entirely white district. I led the Republican ticket by 690 votes."

A Cleveland, Ohio, lawyer says: "My practice is increasing."

An Omaha, Nebr., lawyer says: "My practice has been mixed both as to kind of cases and classes of people."

A Boston lawyer, who is common councilman of Cambridge from a white ward, reports "fair success."

Another Boston lawyer has been alderman of Cambridge for several years.

A Philadelphia lawyer says: "My practice is largely confined to Jews. The better class of negroes is not so likely to patronize me as the whites are."

The chief negro medical schools are Meharry, at Nashville, Tenn.; Leonard, at Raleigh, N. C.; Howard, at Washington, D. C.; Knoxville, at Knoxville, Tenn., and New Orleans, at New Orleans, La. These institutions have done remarkable work in sending out colored physicians. Their standard is lower than the great Northern schools, but in most cases the work seems honestly done and the graduates successful. Negroes have also graduated at the Harvard Medical School, the Medical School of the University of Pennsylvania, and other Northern institutions. The rise of the negro physician has been sudden and significant. Ten years ago few negro families thought of employing a negro as a physician. To-day few employ any other kind. By pluck and desert black men have cleared here a large field of usefulness. Moreover, in this profession far more than in the ministry and in the law the professional standard has been kept high. The college-bred physician has had quacks and root doctors to contend with, but to no such extent did they hold and dominate the field as was the case in the churches and criminal courts. The result is to-day that there is scarcely a sizable city in the United States where it is not possible to secure the services of a well-trained negro physician of skill and experience. The Freedmen's Hospital, of Washington, has made an extremely good record in the difficult operations performed, general efficiency, and training of nurses. Hospitals have grown up in various cities under colored medical men, notably in Chicago, Charleston, and Philadelphia. There are State medical associations in Georgia, South Carolina, Tennessee, and several other States.

The testimony of physicians themselves is usually hopeful. From the North a report from Newark, N. J., says: "I am and have been medical representative on our grand jury. Two-thirds of my practice is among whites. I run a drug store in connection with my practice."

From New York City: "At first I found the whites very backward in dealing with me, but success in several emergency cases gave me some reputation. Now my practice is about equally divided among black and white."

Another from New York City says his practice amounts to about $10,000 a year, and he actually collects about half of that. About a third of his patients are white.

From Philadelphia one reports a large practice, chiefly among blacks and in the colored hospital. One colored physician is connected with a large white hospital. A lady physician from the same city reports "marked courtesy and respect on the part of all."

From the West a Chicago physician says: "I have been quite successful in the short time I have been practicing. About one-half of my patients are white."

Another Chicago physician represented the State of Illinois at the Association of Military Surgeons of the United States.

From Minnesota one writes: "I am succeeding in the practice of medicine in a city whose negro population is very small."

From Denver it is reported that a negro was the first chief medical inspector of the Denver health office, and he was also State sanitary officer. He has a large practice.

From the border States a Tennessee doctor reports: "I have succeeded in building up a good practice here among my own people. No missionary ever had a better field for useful labor."

A man who ranked his class at the Harvard Medical School reports a practice between $3,000 and $4,000 a year. "I am fully successful as a practitioner and surgeon, and I believe I enjoy the confidence of a large number of people."

From Missouri a report says: "I meet with most of the best white physicians in consultation, and they treat me with courtesy."

From Kentucky a young physician reports: "I am located in a town of 12,000 inhabitants, one-third of whom are colored, and am thoroughly convinced that there is a great field here in the South for the educated young colored man. As a physician I am well received by my white professional brother. We ride in the same buggy, consult together, and read each other's books. I have a few white patients, but most of them are colored. I have purchased property on one of our best residence streets, and also a business house on the main street of our town."

A report from Baltimore, Md., reads: "As a physician I find my practice a paying one."

From the heart of the South come many interesting reports. A North Carolina man says: "I have a fair practice for the length of time I have been at work. My intercourse with the white members of my profession is cordial along professional lines. I seek no others."

Another North Carolina physician "has treated more than 40,000 patients with reasonable success." He is now conducting a sanitarium for consumptives.

A colored man of Savannah, Ga., has been one of the city physicians for more than five years. "I have treated no less than 25,000 patients, including several hundred whites."

A Columbia, S. C., practitioner is often "called upon by white physicians to consult with them in medical cases and assist in surgical cases in their practice. I have an extensive and paying practice among my own people and a considerable practice among the poorer classes of the white people."

Another North Carolina physician has been usually invited to attend the white State medical society meetings.

On the other hand an Arkansas doctor says: "I have experienced some prejudice among my white friends. We do not have much to do with each other as physicians."

Still another Arkansas man reports that he "has had a half interest in some of the real major surgical operations done in this city. I have a large field and am often called to see patients at a distance of 20 and 30 miles."

In Macon, Miss., an unusually successful doctor says: "My practice here is very large and among both colored and white. Before I settled here no one had heard of a 'colored doctor.' The history of my parents, who had always lived here, helped to establish me. I have had white people come here from a distance and board here to get my treatment."

No thoughtful man can deny that the work of negro professional men as thus indicated has been, and still is, of immense advantage in the social uplift of the negro. There have of course been numerous failures, and there has been a tendency to oversupply the demand for ministers and lawyers. This is natural and is

not a racial peculiarity, nor indeed is it chargeable to the higher education of the negro. It was the natural and inevitable rebound of a race of menials granted now for the first time some freedom of economic choice. In the ministry this natural attraction was made doubly strong by the social prominence of the negro church, and by the undue ease with which theological students can get their training all over the land. Nevertheless, granting all the evils arising from some overcrowding of the professions, the good accomplished by well-trained ministers, business-like lawyers, and skilled physicians, has far outbalanced it.

OWNERSHIP OF PROPERTY.

It is very difficult to collect reliable statistics of property which are not based on actual records. It was not advisable, therefore, to ask those to whom reports were sent the amount of property they were worth, for with the best of motives on the part of those answering the resulting figures would be largely estimates and personal opinion. One kind of property, however, is least of all liable to be unknown to persons or to be exaggerated in honest reports, and that is real estate. Each college-bred negro was asked, therefore, to state the assessed value of the real estate owned by him. The following table was the result of 557 answers:

Assessed value of real estate.

	Number.	Actual amount.		Number.	Actual amount.
Under $100	3	$150.50	$5,000 to $6,000	36	$182,275.00
$100 to $200	3	410.00	$6,000 to $7,000	13	75,540.00
$200 to $300	15	2,035.00	$7,000 to $8,000	7	50,500.00
$300 to $400	10	4,810.00	$8,000 to $10,000	9	79,375.00
$400 to $500	5	1,025.00	$10,000 to $15,000	17	161,000.00
$500 to $750	58	31,400.00	$15,000 to $20,000	5	71,550.00
$750 to $1,000	28	23,375.00	$20,000 to $25,000	1	21,700.00
$1,000 to $2,000	129	169,220.00	Own no real estate	85	
$2,000 to $3,000	73	158,400.00			
$3,000 to $4,000	42	139,887.00	Total	557	1,342,802.50
$4,000 to $5,000	13	82,600.00	Average per individual		2,411.00

With regard to the 85 who are tabulated as owning no real estate, it is not certain that in all cases this is a fact, or that some of them may not have had property which they did not wish to report. There is no way of knowing, of course, how far these 557 persons are representative of the 2,331 negro graduates. All things considered, however, this is probably an understatement of the property held; for while many of those not reporting held no property, yet most of those who did report represent the more recent graduates, who have just begun to accumulate, while numbers of the other graduates with considerable property could not be reached. Some who are known to own property did not report it. It is therefore a conservative statement to say that college-bred negroes in the United States own on an average $2,400 worth of real estate, assessed value. If the assessed value is two-thirds of the real value in most cases, this represents $3,600 worth of property, market value. To this must be added the worth of all personal property, so that the average accumulations of this class may average $5,000 each, or $10,000,000 for the group. Such figures are, of course, mere estimates, but in the light of the testimony they are plausible.

THE FUTURE OF THE NEGRO.

Among the most interesting of the answers received were those given to the questions: "Are you hopeful for the future of the negro in this country?" "Have you any suggestions?" Of 733 answers received, 641 were hopeful, 40 were doubtful, and 52 were not hopeful. Two hundred and seventy-six persons simply answered "Hopeful."

Others who were hopeful made the following suggestions as to the best methods and ways of advance: One hundred and twenty-five, "College and industrial training;" 49, "Accumulate land and wealth;" 47, "Better trained leaders;" 34, "More unity among ourselves;" 28, "The way seems dark;" 17, "A more friendly feeling between the races;" 11, "Parents and women hold the keys to success;" 10, "America is our home; stay here and work out the problem;" 8, "Better sexual morals;" 8, "Keep out of politics;" 7, "Eventually some must emigrate;" 6,

"Learn economy;" 4, "The negro will never rule, but will gradually gain his rights;" 1, "Emigration talk should be stopped."

Of persons who said simply "Not hopeful" there were 49. Others who were not hopeful or doubtful said: Nine, "They must migrate;" 6, "Fight for morals, industry, and higher education;" 5, "Little chance for the masses; Certain individuals will survive;" 4, "Do not accumulate means;" 3, "The industrial craze must be stopped;" 2, "Prejudice has gone to the North;" 2, "He must enter the commercial world;" 1, "Tendencies of the youth to crime."

The different points of view can best be appreciated by reading the following extracts:

"I am hopeful of the negro. The changes in a rapidly developing country like ours will afford many opportunities for the advancement of the negro; let him acquire the keenness of vision to see them and have the good sense to embrace them; let him seize every opportunity to put any community or the country at large under obligations to him for some manly service, regardless of how he is treated now. These obligations will be paid, if not in this, in the next generation. Problems will do good. Every theory presented by his opponents can be shattered by facts, facts, facts. There is no way in the world to deprive him long of a vote. It is very dark for him now. I think ignorance is making it harder for him than it would otherwise be. Not simply a want of knowledge of letters, but a general deficiency in everything necessary for well-being."

"Yes, but it is only in proportion as the negro is socially, commercially, and politically oppressed by the white people. In other words, under existing circumstances, I count oppression a blessing."

"Sometimes I am hopeful, sometimes I am not. In this part of the country negroes do not seem to embrace opportunities. Too much talent is wasted in politics and in office holding."

"I have always heretofore lived North and have not known the real condition of my people South. While I think I may say I am hopeful, yet as I see the conditions here I sometimes think that it is the progress rather than our lack of progress that is causing the continued friction between the races."

"While I am hopeful of the future of the negro in this country, I realize that he is now passing through the most crucial period of his existence here, if we except his condition in slavery. The sympathy of the North is being largely withdrawn from him and the South I believe to be growing more antagonistic to his progress and self-respect as a citizen. I would suggest a college education for the few exceptionally bright and industrial training for the majority of the negro youths."

"His future depends upon his own self-respect and thrift."

"Despite hindrances, too many opportunities are opened and opening for us for it to be possible to despair. The work of schoolhouses and churches, of such organizations as you represent, means a brighter day. The greatest need of our people, as I can see it, is parents. We need, need sadly, fathers and mothers who realize the full importance of the training of the children sent to them. Every home that has a cultivated, womanly mother and a manly, intelligent father is a source of strength and power. God grant that such homes may increase."

"This country offers the negro the brightest future of any in the world. He will and must succeed."

"Present oppression, suppression, and misrepresentation must give place to a sentiment of fairness and fair play. We must expedite its coming by developing a ministry that will study and comprehend the moral needs of the race and teach accordingly. Parents must be awakened to a sense of their duty as parents—the trend of the youth toward the vices must be checked. I am not in sympathy with those who say that the negro should eschew politics to the extent of neglecting to exercise his franchise."

"The negro must know that he must rid himself of obnoxious characteristics, save money, acquire property, learn trades, and become moral. The leading men among us must have sense enough to denounce the rapist as well as the lynchers."

"Guard well the sanctity of the home. Make a home, beautify it, make it pure, protect it, defend it, die by it. If the youths of our race were sent out from pure, happy, well-regulated homes, half the battle would be fought to begin with."

"In spite of conditions, apparently inauspicious, I am sufficiently optimistic to be hopeful of the future of the American negro. I consider the ostracism—political, social, industrial, etc.—to which he is subjected to be a training school out of which he will emerge a united race and, as a necessary concomitant, invincible. The key to the situation is the fostering of the spirit of race pride and the formation of ideals necessary to be realized and possible of realization."

"I think the strong caste prejudice in certain sections will lessen as those sections become less provincial and more cosmopolitan."

"I find that the negro's ignorance, superstition, vice, and poverty do not disturb and unnerve his enemies so much as his rapid strides upward and onward."

"I would like to see a restricted ballot fairly applied; I believe the negro would be the greater gainer."

"I suggest that one-tenth of his external religious energy be applied to the accumulation of homes and desirable lands."

"The future of the negro depends upon his making himself felt as a race. Not by force, but by intelligence and wealth. Also, I would add that our colored lawyers have much to do, for through them we are to get our legal rights."

"When we look at the masses of our people and see on the one hand ignorance and on the other careless indifference, it is difficult to feel very hopeful for the future. We see so many of our young people who seem to have no thought of the future, no ideas beyond having a good time in the present, who seem able to have no enthusiasm over anything higher than a ball or like entertainment. They can not be brought to take interest in any measure that will benefit us as a people."

"Patience, character, time. I believe the negro will have to build up a government of his own somewhere."

"A good many of our young men and ladies, after they have gone to college, think that manual labor is not for them to do. When we get more real estate we can open stores and other places of business and employ the college-bred negro."

"Money, money, money, is what he needs."

"The negro should engage in business, have his own stores, dry goods, drugs, groceries, banks, his own professional men: and make morality and education the basis of worth."

"I would suggest that we accumulate more property, get homes, and that those who have homes invest their money in negro enterprises."

"I am very hopeful. All of the older races have risen and fallen; the white race is at its zenith and of necessity will fall and the negro take its place."

"I am indeed hopeful for our future, and not only in this country but here in the South. Daily I ride through thousands of acres of land owned by negroes in Mississippi. They are happy and prospering. Let us fear God, treat our white neighbor with courtesy, save money and educate our children, and the close of the twentieth century will find us a great and prosperous people."

"For the remote future I am hopeful; but a triumph which is to come only 'after the silence of the centuries' holds out little to those of the present age; and still there is some pleasure in planting trees for future generations."

"I have never seen any good or sensible reason to despair of the future of our people in this country, though I must admit the outlook at times is anything but hopeful. I can not escape the conclusion that it would have been better for the race in the long run had a Territory or Territories been set apart for it. His progress would certainly have been more apparent. As it now is he is overshadowed by the white race. The negro may eventually reach his best here and will doubtless, but it will be a long while yet."

"I am hopeful for individual members of the race, but for the race as a whole I am not. I am in favor of expatriation."

"I would suggest that our leading men do less talking on the negro question as such. Much talking means much concession, and much concession means less opportunity."

"More should turn their attention to business and fewer enter the professions of teaching or preaching."

"As a race, no; as individuals, yes. Class legislation, such as 'Jim Crow cars,' disfranchisement, and other kindred evils, is slowly undermining the manhood of the race. The negro begins to think that he is in all respects inferior to all other people."

"I believe that the wheels of progress never glide backward. How fast the advancement of the negro will be is left to his control. I believe in union of negroes—that they should stand together in all things, and that their inherent prejudice should be turned from each other and directed toward those who hate them."

"Suppress the so-called political leaders among us and send those who incite to deeds of violence to the Transvaal, and the period of right living and right thinking which must come will be hastened."

"Those of us who are getting out of the wilderness and mire of ignorance and degradation must help those who will not or can not help themselves."

"Why should I not be hopeful? The abandonment of the priesthood of a race has always been attended with disasters. Let the negro stick to his church in the service of God. Be honest, honorable, peaceable, make and save money, educate his children as highly as he can afford to, attend to his own business, and let white people settle their own quarrels."

"I suggest that religious and educational work should be done on the missionary plan in the lanes and quarters where the lowest and most vicious negroes live. Negro churches are not practical enough in their work. Religion is too often mistaken for piety. Our educated young people are too high above the masses to help them. Let them personally help in the moral uplift of the criminal classes, and especially their children. Industrial training should be advocated for the masses, but higher education should not be discouraged when the means and ability are sufficient.

"I believe that ultimately, just as the Pilgrim Fathers left England to escape persecution, so the negro will have to leave this country to escape color persecution. It is also necessary for him to leave this country to gain racial independence. As long as the negro is carried about in the lap of the superior race as an infant in 'swaddling clothes,' which he is, or as long as he permits any other people to assign to him a place he does not like, or which he has not carved out for himself, or which he is unable to maintain, so long will he continue to remain helpless and despised. There are plenty of countries in the Tropics where the thrifty negro may go, and where by patient and earnest toil he might lay the foundation of a government which would be free from color persecution and which would be attractive to future generations of American negroes."

"I am hopeful, though it is dark just now and the world seems to be against us. God is just and will lead us through the cloud in His time. The people should be urged to buy land, get homes, educate their children, save their money, live honestly, and stick together—that is, love our race better than any other."

"The abundance of ignorance and poverty among our people is the general hindrance."

"I would suggest that we be honest with ourselves, not try to lay the blame upon some one else; stop whining and try by individual effort and accomplishment to prove our claim and right to American citizenship."

"My suggestion is that he make good use of the opportunities at hand; develop that which is best in himself. Don't strive to be other people, but make himself the equal, and if possible the superior, of other people."

"When I look back to the point from which the negro started, the distance he has already come, and the achievements he has made through adverse circumstances, all this is to me but dim prophecy of future possibilities, and therefore I can see no reason for despair, though the night be dark and the storm rage."

"I have the most profound confidence in the future of the negro; but there is need, first, of a greater dissemination of knowledge among the masses; second, more attention given to real character building; third, facts creditable to the negro made known; fourth, falsehoods answered and publicly exposed; fifth, immoral and weakening habits rebuked, and Judases among negroes denounced."

"If the white people were more disposed to reason on the race question from the negro's standpoint, and the colored people were also more disposed to reason on the question from the white man's standpoint, there would be good ground for being more hopeful."

"I was hopeful until I went to Alabama."

"If the fullest glow of warmth and glare of light possible to American life would be afforded him he would come to the light and walk in the light, but with a flaming sword at every gate he can not progress. Without a radical and early change in the general judgment and treatment of the negro the first half of the twentieth century will place him in a position more inextricable and more hopeless than his enslavement."

"I am sorry to say that the future for the negro in this country looks very dark to me, and the more I come in contact with the masses of the people, especially our people, the more confirmed becomes my opinion."

"Am much afraid of the bad influence of so-called leaders who lack the moral stamina, and often have large influence with the masses. They work on their prejudice, and appeal to their instincts. In place of noisy 'leagues,' 'conventions,' and showy resolutions and talk, only talk, more solid, honest, modest work among us would wonderfully help. Our leadership is often superficial in character, sentimental, insincere. We are often discredited among better classes of other races because we fail to discriminate on lines of character."

"In a manner, yes. He is a sluggish, lazy creature, however, and must be driven either by necessity or some other master, or he will not accomplish much. They need competent leadership, especially in the pulpit, from which point most of them may be reached. Too many of their ministers are mercenary politicians entirely lacking in character."

"Very hopeful. The work lies mainly in the hands of teachers and ministers. They must insist upon neatness, cleanliness, good, orderly homes, refinement, quiet manners in all public places. Teach boys and girls to establish an ever-increasing bank account. Every family should have at least one good newspaper and family magazine."

"No, there is no future here for the negro but peonage. A few of the quadroons will lift themselves out of the slough of oppression and go to the English colonies. The mass will go lower and lower to the dead level of mere existence. The reasons for this are the terrible combination of odds against the negro and his own qualities."

"A few years ago I had great hope that the depressing conditions which existed then could not last long, but my hopes have about faded. The main reason for this is in the fact that prejudice against the colored man has spread from the South to the farthest point North."

"I am discouraged when I note, particularly in the South, the tendency of our young men to immorality, vice, and crime. The saloon and the dice are playing terrible havoc with the 'flower' of the race. I am more hopeful for the young women, as shown by the numbers that are being trained in schools and colleges."

"The negro can not be a great race in this country. Let the race learn all the trades and professions, and thus be prepared for separation, for separation must come some time."

"I am hopeful. I would suggest that the negro leaders, preachers, teachers, editors, etc., assemble and have a conservative understanding as to how we shall best reach and improve the condition of that class of negroes who are guilty of the crimes which are the alleged cause of the confusion in this country. That class of negroes who are guilty of confusing this country with heinous crimes is a class that never attend church and school, nor do they read a paper."

"I believe he can prosper here if he'll get an education, be honest, and accumulate property. I believe the future of the negro rests with the women. Every effort should be made by mothers and schools to raise their morals. I would advise young women not to take immoral men as their equals. Mothers should teach their daughters that it is better to be alone than in bad company."

"Our future looks dark to me. I think colonization out West or in the West Indies our only hope."

"There is no hope for the negro in America unless put to himself. As long as he is found with the white people so long will he be their servant. This is clearly seen every day. The prejudice is too great. Emigration is the only solution. Let him get to himself."

"The negro religion at the present time is a hissing and a reproach. Kipling says: 'When the negro gets religion he returns to the first instincts of his nature.' We are cartooned to the full extent of the law and many of these cartoons have much truth in them. Purify negro worship. Uncloud the negro's God and the church will be the true solvent of the difficulties of the race."

"I have hope, because we have a Bible. In a heathen country in the midst of like conditions I should utterly despair. The American conscience will some day respond to the Sermon on the Mount."

"This is the most favored spot on the globe for any man. I do not recognize any demands upon the negro different from those upon every other man of our conglomerate civilization and nationality. My suggestion is that we be ourselves to the very fullest and highest."

"To my mind the future of the negro in this country seems dark. Ten, fifteen, and twenty miles from the cities and towns in this State you will find the majority of our people practically slaves to the landlords. We need a true Moses to lead us away."

"I do not think that the negro will ever reach the height of his ambition in this country. I think we should have a territory to ourselves; somewhat like the Indians have."

"I am not very hopeful of the negro as a race. The only suggestion I would make is that those of us who have influence do something to stop this industrial craze. It is popular because many of the whites believe that the theory is to educate the negro to be a good servant. The average white man cares little for the negro as a man. If he is to be educated to take some inferior place the whole country applauds."

"It is a hard question. I fear the negro is degenerating. Our boys and men are for the most part lazy around our cities and towns, and the outlook so far as they are concerned is gloomy."

"I think that the physical vitality of the race has been and is still being lowered by immorality and the race stock permanently weakened."

"I am hopeful, but I fear I shall never live to see the better day which is assuredly coming. The present negro will have to suffer, sacrifice, work, and die for those who will come after us. I think we are too sycophantic. We do not agitate enough right here in the South, and we do not avail ourselves as we ought of the right of petition to redress our grievances."

"I write from Oklahoma. This place offers to my mind the best opportunity negroes have had in this country. The civilization is being built up now and negroes have a chance to be in the formation."

"I think the negro has a future in this country, but they must rise as individuals and not as a mass."

"I fear more from the negro's own misconduct toward himself than I do from the outrages of others. I am hopeful, however, of the negro's future."

"The negro can succeed in this country. One of the principal things against us is the boastful spirit in the negro. Let him throw away that spirit and take on one of kindness and obedience to law and order, putting forth every effort to accumulate money and to buy land and other of the earth's treasures, he will succeed beyond man's estimate."

"The negro in this country must learn to be a unit, to stop social strife, and, above all, to forbid the ignorant to attempt to rule those of their own race who are educated and are competent to fill positions of trust and honor on their merits and educational qualifications."

"Let each negro forge ahead regardless of proscription. Success must come to the man who works regardless of obstacles."

"I am hopeful, yet it will be necessary for us to open the eyes of our people to the fact that we are being supplanted by white men. White men are taking employment from us. What must be done? We must do something."

"His future is beclouded. He is drifting morally, and unless there be some speedy rescue his doom is sealed. The Bible asserts that: 'A man's greatest enemy is in his own house:' so my candid belief is that the negro is the greatest enemy of the negro. Confidence must be implanted, that organizations may be perfected for protection and successful enterprise."

"Can you offer a solution for the employment of the great loafing classes? These are the ones who cause the enormous death rate in our cities. These are the ones who commit the crimes chargeable to the negro race."

"Not through amalgamation nor deportation—often we console ourselves with such delusive hopes—but through much humiliation, many obstacles from within and without, much learning and labor, many tears and years to success."

"I am, provided he will acquire real estate; own something that somebody wants; separate and go into different political parties; stop clamoring for places; go make places and occupy them; economize along all lines."

"Yes, if they can be encouraged to buy farms, and not seek the cities and towns unless they have a profession. Give the negro a farm and a plenty to eat and he will care but little for the 'Jim Crow' car. Independence is the best way to keep from being oppressed."

"If we could get the negro to see his own condition, and then be willing to strive with all his might to improve even the few opportunities he has, I am sure he would soon come to the front."

"I must be hopeful of a race that has made in one generation the progress that we have, and that in competition with the most progressive people on earth."

"I think through industry, constancy, and self-respect the future of our race will be made secure. I am not in sympathy with any colonization schemes."

"The negro can never enjoy equal civil and equal political rights with the white man in this country except through centuries of wars and revolutions similar to those Rome, England, and France experienced in securing equal rights to their different classes of subjects."

"When we can get our women to see that the future success of the race depends on them; when they have a higher standard, when we have purer mothers, wives, and daughters, then we shall have better men; then will our race succeed."

"I hardly know what to say here. If it were intelligence which was demanded of the negro I would be hopeful. But I fear it is not that; the prevailing belief among the masses of the white people is that the negro is made for all lowly work in life, and wherever the negro differs from this belief there is ground for trouble."

"As to the future of my race I am an optimist. I believe that the salvation of the negro lies in the regenerated South."

"I entertain hopes, but I am not enthusiastic over them."

"I am hopeful, yet sometimes I doubt the wisdom of being so."

"I think the future of the race in this country is indeed uncertain."

"As a negro, 'no.' As an American citizen, growing important silently under persecution, individually catching the prosperity epidemic by contact until merit forces color in the background, 'yes.'"

"The chief occupation of the young negroes of this town seems to be as waiters, caterers, and the like. Outside of these menial lines I see but little prospect of any notable success among them, though if increased ideas of soberness and thrift could be made theirs, they might be a more respected and powerful portion of this community."

"I am sanguine. The negro must get in the van of every profession pursued by the Anglo-Saxon and stay there. Solid reason molded into general intelligence, sound morality, financial independence, and reverence for the Constitution and laws of our country is the basis upon which the race is destined to reach a preeminent place in American history."

"I am hopeful, though I regard the present condition in the South as alarming. I have serious apprehensions on account of the friendship between the North and South as a result of the war, and I have some fear lest the industrial theory of

education may be exaggerated or misconstrued and the race be put in the light of aspiring to nothing more than to be successful 'hewers of wood and drawers of water.'"

"If we are left to carve our own future, unhampered by negative laws and influences, I have hope in our own powers of development, but I fear the things that may discourage us."

"The fittest will survive; the public schools and the graveyard will ultimately bring things right."

"I am; but the difficulties seem to increase with progress. I am in favor of industrial education, but not to take the place of higher education."

"I am hopeful of the negro's future. Organized support should be given for the education of negroes of superior mental ability at the best universities in this country. The best among us must be fully developed and the worst truly saved."

"I am hopeful of our future. But inequality of wages and expenses is greatly hindering our progress in almost every way. Far more of our troubles are to be attributed to this than one would suppose."

"History shows that the negro of America is treated better than the peasants of the past were treated, though they were of the same race as were their masters."

"I have, and my hopes are based on the equality of the work that is being done in Fisk, Atlanta, Wilberforce, Central, Howard, Tuskegee, and like institutions. Surely the catalogues of higher instruction are sufficient to inspire hope when one sees the vast amount of work accomplished by their army of graduates. I suggest that each negro principal of public school should be the representative of some standard negro publication; should endeavor to create an interest in race literature. Each teacher should take at least a half hour each week talking of representative colored men and women and what they have accomplished; should teach race history in conjunction with United States history, from the battle of Lexington to the storming of San Juan Hill."

"It will require an age to cement the negroes together. Intelligence, virtue, industry will join education and work; all kinds of education, from kindergarten to the university, and all kinds of work, from the plow to the telescope. The young negro must be put to work in order to save virtue, keep out of crime, and lay the foundation for a mighty race."

"To the extent that he is willing to distill his life's blood into his chosen work, I am. Let him find out what he can do well, and do that thing with all his might. If in any case 'his legs fail him, let him learn to fight on his knees.'"

"Yes, and no. Materially and financially, yes. For us as a people who may hope to win an equal respect and consideration for our manhood from the dominant race, I am afraid the situation is hopeless."

"The fault is not in our stars, dear brothers, but in ourselves."

"We need better primary schools, more teaching force, and longer terms in the rural districts."

"The Northern negro, as I see him, lacks earnestness of purpose, is too easily satisfied, lives too easy, does not appreciate the value of character, and too often does not know what it is. Lives too much in the present, thinks not of to-morrow."

"We should never forget that the world belongs to him who will take it."

"I am hopeful for the future of the negro to a certain extent. The masses in the rural districts must be looked after more than they are. Earnest, educated men and women must go among these people to live and work."

"I am sorry to say that the evidence of our hope is not as substantial as I would like it to be."

"The hope of the masses of the negroes will be, in my opinion, in industrial education."

"I regard the future of the negro in this country as assured. He will never encounter absolutely insurmountable barriers to his really essential progress. Men are ashamed to be quoted as opposing him in that direction. The wrongs done

him in the name of resisting his criminal tendency will operate only to spur him to better things, and those who interpose to hinder him here will suffer permanent moral deterioration and decay."

"While I favor industrial schools, there never was a time, in my opinion, when there was a greater need of college-bred negroes than there is to-day. There will never be too many, the road is too long and rough for too many ever to reach the end. Our race needs college-bred men just as badly as do the whites: in fact, we need them more."

"It does seem to me notwithstanding the criticisms from without and the constant complaining within that the race is progressing."

"I would suggest that each put forth effort to have a greater number of college-bred men and women. We need them as leaders. Our race has and is furnishing plenty of muscle, but we need more brain."

"The responsibility of this age is upon the negro to educate the white man out of his prejudice. It is our condition rather than color that is our great drawback. When we want a special car, put up the money and we get it. If we owned railroad stock we could help make the rules that govern the company. If we had the controlling amount of stock we could have our conductors."

"I am optimistic in spite of the lowering clouds. We have but recently burst from the storm and are not far enough away from it to become settled. I believe this to be the 'Sturm und Drang' period of the negro's existence. I am aware of the strong arguments against such a position, but in the light of the teaching of history there must be, there is, a turning point down near the gates of despair; where once the opposing currents are mastered brighter and better conditions must arise. A better understanding, and the practical application of the laws of chastity, morality, Christianity; an ever increasing acquisition of wealth and practical intelligence; the adoption of principles of courageous manhood; the wholesale banishment of buffoonery and instability; a closer study of those elements that have made the Anglo-Saxon great, and a strong pull, a long pull, and a pull individually and collectively toward the acquisition of the same traits, seem to me to be a few of the essential things that may possibly level our barriers."

"(*a*) In spite of the present disquieting conditions I am inclined to feel hopeful for the following reasons:

"1. The difficulties that now confront the negro will serve to awaken his dormant energies, and in proportion as he applies himself to master these difficulties will he be developing his manhood. I notice that where the negro is most oppressed there he is most prosperous. For this reason I have always held that the salvation of the race is to be worked out in the South.

"2. I feel in what the negro has achieved since emancipation the promise of what he will achieve in the future. His power and resources have increased considerably in these thirty-five years.

"3. I perceive in the negro elements of character which are his saving virtues. He is ambitious, irrepressible, patient, and possessed of marvelous powers of endurance. He aspires to be something else than what he is, and will strive for it. If he is kept back he will still look at the object, bide his time, and seize the opportunity when the chance invites.

"4. I believe that humanity, respect for law, and love of justice, which are such conspicuous qualities of the heart of the Anglo-Saxon—the dominant race of this country—will some day reach out and embrace the negro in America as it has his brother in Cuba and his cousin in the Philippine Islands.

"5. I have strong faith in the irresistible power of the Christian religion to bring those under its influence to accept the doctrine of the brotherhood of man and to live up to its obligations.

"(*b*) As the conditions of American life demand that the negro shall take an active part in bringing about a change for the better in his situation, there are some things which should engage his most earnest endeavor. I venture to suggest those that now occur to me:

"1. To try and make himself a necessity. Whatsoever his hands find to do he must do it so well that his services will be indispensable. And he should strive to be a producer as well as a consumer. In order to gain this position let him follow the example of his prosperous Anglo-Saxon brother, namely, of cultivating and applying the resources of his intellect. To this end an opportunity could be afforded by means of the university-extension system, adapted to the peculiar needs and circumstances of the race. The plan should provide for night schools, in which

professional men and women can, in their own communities, give their service freely or for a small remuneration.

"2. The practice of thrift and frugality.

"3. The establishing of real unity and cooperation of the race.

"4. The making the best use of the opportunities which are at hand."

IS THE COLLEGE TRAINING OF NEGROES NECESSARY?

A few opinions of prominent men in answer to this query are subjoined. They are partly in answer to a circular letter sent to a few college presidents:

I have never lived South, and my opinion on the question you ask is not very valuable. It is, in a word, this, that Mr. Warner's contention is right for most members of the race, but that the way should be kept as wide open as possible for gifted men like * * * , Booker Washington, and many others to have every opportunity that any of the Northern or other colleges can afford.

I am, very truly, yours,

G. STANLEY HALL,
President of Clark University.

DECEMBER 10, 1900.

I believe not only in common-school and industrial education for the negroes of the South, but also in their higher education. The higher education is necessary to maintain the standards of the lower.

Yours, truly,

GEORGE E. MACLEAN,
President of the State University of Iowa.

DECEMBER 11, 1900.

I believe fully in the higher education of every man and woman whose character and ability is such as to make such training possible. There are relatively fewer of such persons among the negroes than among the Anglo-Saxons, but for all of these the higher training is just as necessary and just as effective as for anyone else.

For the great body of the negroes the industrial and moral training already so well given in certain schools seems to me to offer the greatest hope for the future.

Very truly, yours,

DAVID S. JORDAN,
President of Leland Stanford Junior University.

DECEMBER 14, 1900.

Your circular of December 8 comes duly to hand. In response I would say that in my judgment no race or color is entitled to monopolize the benefits of the higher education. If any race is entitled to be specially favored in this respect I should say it is the one that has by the agency of others been longest deprived thereof.

The above you are at liberty to present as my sentiments.

Yours, cordially,

WM. F. WARREN,
President of Boston University.

DECEMBER 13, 1900.

In reply to your request of December 5, I would say that it seems to me that the collegiate or higher education is not a special favor to be granted to men on the ground of race, family, or any such minor consideration. The only condition for the receiving of a college education should be the ability to appreciate and to use it. Human nature is substantially the same everywhere. It should be the glory of our country to afford to all her young men and women who crave the broadest culture and who have the spirit and ability to acquire it, the amplest opportunity for development. Looking at it more specifically, I can see that the general uplifting of our negro population requires a proper percentage of college-bred negro leaders.

Yours, sincerely,

GEORGE C. CHASE.
President of Bates College.

DECEMBER 17, 1900.

You ask for my opinion in regard to the desirableness of higher training for the negroes. Let me begin my statement by saying that I have the utmost faith in the management of the Atlanta University and several other institutions for the training of negroes in the South. I will, however, candidly say that in my judgment there are a great many of the negroes whom it is not worth while to guide through a course of university training. I think that is true also of the white race, but in the present condition it is peculiarly true with regard to colored people. My idea would be that all the training that the colored man is capable of thoroughly mastering should be given him, but that in the higher departments of learning, like political economy and history, the ancient classics and the natural sciences, only selected men should be given the fullest opportunities. I have the strongest confidence that such training as is given at Hampton and at Tuskegee, largely manual and industrial, is of the greatest importance for the negroes and is to be the means of fitting the race a generation or two hence to enter more fully into the more abstract and philosophical studies. I do not know that I have made myself perfectly clear, but in a general way I should say the multiplication of universities of the higher sort is not desirable in comparison with the multiplication of training schools for all the trades and manual activities.

With best wishes, very sincerely, yours,

FRANKLIN CARTER,
President of Williams College.

DECEMBER 12, 1900.

Teachers and leaders need more than a common school education. This is as true of negroes as of whites.

Where shall they obtain a liberal education? With few exceptions, I think, it should be in the Southern colleges. The color line is so sharply drawn in Northern colleges (unfortunately) that a negro is at great disadvantage, not in studies, but socially. * * *

Very truly, yours,

GEORGE HARRIS,
President of Amherst College.

DECEMBER 12, 1900.

I believe in the Southern negro college and the higher education of negroes. * * *

Very truly, yours,

JOSEPH SWAIN,
President University of Indiana.

DECEMBER 10, 1900.

The problem is such a difficult one that I have been compelled largely to rely on the judgment of my friends. My opinions are chiefly taken from the experience of Mr. William F. Baldwin, now president of the Long Island Railroad, and are therefore hardly such as I ought to put in a form for quotation.

Sincerely, yours,

ARTHUR T. HADLEY
President of Yale University.

DECEMBER 10, 1900.

I am, like many others, greatly interested in the question of education of the negroes. There seems to me to be a place for the college properly so called which shall teach a certain number, who may be leaders of their race in the South, as preachers and advanced teachers. At the same time, I have much sympathy with Mr. Booker T. Washington's idea, that a large proportion of them should be educated for industrial pursuits.

Yours, truly,

JAMES B. ANGELL,
President of the University of Michigan.

DECEMBER 10, 1900.

How, then, are the teachers, the preachers, the physicians for the colored race of the South to be provided, unless the South has institutions of the higher education serving the negro, fitting him for these higher positions? We know very well that the negro, as he rises in the social scale, will live in better houses and

follow better trades, and, in general, be industrially and financially elevated; and we should not for a moment criticise the work which is going on throughout the South in several institutions which Boston interest and sympathy have furthered.

But there is another essential thing—namely, that the teachers, preachers, physicians, lawyers, engineers, and superior mechanics, the leaders of industry, throughout the negro communities of the South, should be trained in superior institutions. If any expect that the negro teachers of the South can be adequately educated in primary schools, or grammar schools, or industrial schools pure and simple, I can only say in reply that that is more than we can do at the North with the white race. The only way to have good primary schools and grammar schools in Massachusetts is to have high and normal schools and colleges in which the higher teachers are trained. It must be so throughout the South; the negro race need absolutely these higher facilities of education.—CHARLES W. ELIOT, *President of Harvard College* (in a speech at Trinity Church, Boston, February 23, 1896).

The higher education is the last thing that the individual pupil reaches; it is what he looks toward as the end. But from the point of view of the teachers, from the point of view of the educational system, the higher education is the very source and center and beginning of it all; and if this is wanting the whole must collapse. Take away the higher education, and you can not maintain the level of the lower; it degenerates, it becomes corrupt, and you get nothing but pretentiousness and superficiality as the residuum. In order to maintain the lower education which must be given to the South, you must have a few well-equipped institutions of higher learning.—WILLIAM D. HYDE, *President of Bowdoin College* (in a speech at Trinity Church, Boston, February 23, 1896).

It seems fair to assume from these and other letters that the conservative public opinion of the best classes in America is that there is a distinct place for the negro college designed to give higher training to the more gifted members of the race; that leaders thus trained are a great necessity in any community and in any group. On the other hand, there is considerable difference of opinion probably as to how large this "talented tenth" is—some speaking as though it were a negligible quantity, others as though it might be a very large and important body.

The opinions of some other persons ought perhaps to be added to the above. First, there is the almost unbroken line of testimony of the heads of negro colleges; this is, of course, interested testimony, and yet it is of some value as evidence. A man who left a chair in the University of Michigan to go South and teach negroes before the war ended wrote after twenty-five years' experience in college work:

"By this experiment certainly one thing has been settled—the ability of a goodly number of those of the colored race to receive what is called a liberal education. A person who denies that shows a lack of intelligence on the subject.

"But the possibility granted, the utility of this education is doubted both as to individual and race. First, then, as to the individual, aside from the mere mercantile advantage derived from education, does not the hunger of the negro mind for knowledge prove its right to know, its capacity show that it should be filled, its longing that it should be satisfied? And as to the race at large, does it not need within it men and women of education? How would it be with us of the white race if we had none such with us—no educated ministers, doctors, lawyers, teachers, professors, writers, thinkers? All the preaching to 8,000,000 of colored people in the United States is done by colored preachers, with the merest exceptions here and there. Do these negroes not need preparation for their vastly responsible calling?

"The entire work of instruction in the colored public schools of the South is done by colored teachers. These teachers can not be prepared in the white schools and colleges of the South. Where, then, shall they be prepared if not in special higher institutions of learning open to them? What is to become of the millions of colored people in the United States? Who are to be their leaders? Doubtless persons of their own race. Do they need less preparation for their calling than

do members of the white race for theirs? Is not their task even more difficult? Have they not questions of greater intricacy to solve? Did not Moses when leading ex-slaves out of Egypt need special wisdom? Are not the colored people of to-day 'perishing for lack of knowledge?'

"But the objector will say, Why have these long courses: these colleges for colored people? Would not shorter courses be as well, or even better? The following is my belief on this point, after twenty-five years of thought and experience: If the negro is equal to the white man in heredity and environment, he needs an equal chance in education; if he is superior, he can get on with less; if he is inferior, he needs more. The education required is not simply that of books, but of life in Christain homes, such as are supplied in nearly all our missionary schools for that people, and of religion through the Christain church and its influences."

The president of another negro college said in 1896:

"To imagine that the negro can safely do without any of the institutions or instrumentalities which were essential to our own advancement is to assume that the negro is superior to the white man in mental capacity. To deprive him of any of these advantages, which he is capable of using, would be to defraud ourselves, as a nation and a Christian church, of all the added power which his developed manhood should bring to us. It does not seem to be necessary in this audience to discuss the proposition that intelligence is power, and that the only road to intelligence is through mental discipline conducted under moral influences.

"What have we been doing for our brother in black to help him in his life struggle? The work began somewhat as in the days of our fathers. The John Harvards and the Elihu Yales of Pilgrim history found their counterparts in General Fish, Dr. Phillips, Seymour Straight, and Holbrook Chamberlain, who founded colleges even before it was possible for many to enter upon the college course, but with a wise forecast for the need that would eventually come and is now actually upon us."

These two extracts sufficiently represent the almost unanimous opinion of the presidents and teachers in negro colleges that this training is a success and a necessity.

Further testimony is at hand from the answers which college-bred negroes made to questions as to their present estimate of the value of their training. This testimony is, of course, apt to be distinctly one-sided—only a few peculiarly open natures being likely to acknowledge a failure in their own training. Nevertheless the answers received were so frank and varied that they should be studied:

HAS YOUR COLLEGE TRAINING BENEFITED YOU?

Yes	412
It was a great benefit	34
The largest possible benefit	6
It was certainly a benefit	23
My college training has fitted me for life	17
A wonderful help	21
It has been of incalculable value	7
Immeasurable	18
It has been of infinite value	8
It was indispensable	20
The college made me	9
I owe my success to it	6
Too difficult to answer	1
No other would have been serviceable	11
Could not pursue my present course without it	4
Industrial and college training together benefit me greatly	1
To do great service for my race	4
Useful even to a laborer	1
Have no reason to regret	5
It has been the best investment	3
Nothing above it but virtue	1
Wish I had time for more	6
Gave me a foundation	2
No other could take its place	1
It has enabled me to educate 500 persons	1
It has been invaluable to me	2
Great service in rearing my children	1
It has not, in my line of work	1

WOULD SOME OTHER TRAINING HAVE BEEN OF MORE SERVICE?

I think not	172
Doubtful	11
Not sure	7
Some system to keep in mind professional intentions	1
An agricultural course might have been of more benefit	1
Good business course would have been better	2
Industrial training helps	1
Judging from present conditions, no	1
A scientific course	1
There is no substitute	1
No other could be of so general service	3
Could tell if I had used my energies in another direction	1
A practical course in the English Bible and in music training	1
A course in music	1
Would not exchange for another kind. It is an eminence from which all other fields can be surveyed	1
No other kind could have	7
Would not exchange	2
A commercial in addition	3
Not as far as I can observe	1
Some other in addition would have been helpful	4
No other would have suited my case	1
Financially, some other might	9
A more complete training would be beneficial	1
Manual training would have been more beneficial	1
A complete mastery of one trade would be of great help in addition	8
Would have to try some other to be sure	2
Architectural drawing would have helped me	1
No other in my profession	2
Tried another, but found college most beneficial	1
A practical training would have been quite beneficial	1
Primary work more beneficial in my work	1
A course in sewing	1
A carpenter's and a printer's trade in addition	1
Can not say	18
Yes	2

From a careful consideration of the facts and of such testimony as has been given the following propositions seem clear:

1. The great mass of the negroes need common school and manual training.
2. There is a large and growing demand for industrial and technical training and trade schools.
3. There is a distinct demand for the higher training of persons selected for talent and character to be leaders of thought and missionaries of culture among the masses.
4. To supply this demand for a higher training there ought to be maintained several negro colleges in the South.
5. The aim of these colleges should be to supply thoroughly trained teachers, preachers, professional men, and captains of industry.

The central truth which this study teaches to the candid mind is the success of higher education under the limitations and difficulties of the past. To be sure that training can be criticised justly on many points: Its curriculum was not the best; many persons of slight ability were urged to study algebra before they had mastered arithmetic, or German before they knew English; quantity rather than quality was in some cases sought in the graduates, and above all, there was a tendency to urge men into the professions, particularly the ministry, and to overlook business and the mechanical trades. All these charges brought against the higher training of the negroes in the past have much of truth in them. The defects, however, lay in the application of the principle, not in the principle; in poor teaching and studying rather than in lack of need for college-trained men. Courses need to be changed and improved, teachers need to be better equipped, students need more careful sifting. With such reform there can be no reasonable doubt of the continued and growing need for a training of negro youth, the chief aim of which is culture rather than bread-winning. Nor does this plain demand have anything in it of opposition or antagonism to industrial training—to those schools

which aim directly at teaching the negro to work with his own hands. Quite the contrary is the case, and it is indeed unfortunate that the often intemperate and exaggerated utterances of some advocates of negro education have led the public mind to conceive of the two kinds of education as opposed to each other. They are rather supplementary and mutually helpful in the great end of solving the negro problem. We need thrift and skill among the masses; we need thought and culture among the leaders. As the editor has had occasion to say before:

"In a scheme such as I have outlined, providing the rudiments of an education for all, industrial training for the many, and a college course for the talented few, I fail to see anything contradictory or antagonistic. I yield to no one in advocacy of the recently popularized notion of negro industrial training, nor in admiration for the earnest men who emphasize it. At the same time I insist that its widest realization will but increase the demand for college-bred men—for thinkers to guide the workers. Indeed, all who are working for the uplifting of the American negro have little need of disagreement if they but remember this fundamental and unchangeable truth: The object of all true education is not to make men carpenters—it is to make carpenters men."

HIGHER EDUCATION OF THE NEGRO—ITS PRACTICAL VALUE.

By President HORACE BUMSTEAD, D. D.,

Atlanta University, Georgia.

All education is practical which can be turned to use and made productive of some desired end. In the education of the American negro there are certain ends which all good people agree in desiring. The appalling illiteracy of the masses must be reduced. The criminal tendencies of the lower classes must be checked. The productive capacity of the wage-earners must be increased. The domestic life of the race must be improved. Their citizenship must be safeguarded and ennobled. The development of personal character must be stimulated—this last the most important of all.

MANY CLASSES OF NEGROES.

It is idle to suppose that all these desired ends can be secured by any single form of education without the cooperation of other forms. No man can wisely shout "Eureka," and proclaim the race problem solved by any one method of training. The problem is too manifold, too complex, too intricate to admit of solution by a single panacea.

Moreover, the American negro is in condition to receive in due proportion a much greater variety of education than many people have supposed. We have too long made the mistake of regarding the race as one homogeneous mass instead of recognizing the diversity of its different classes. The 4,000,000 set free by the civil war have grown, probably, to 9,000,000, or nearly as many as the entire population of the United States in 1820. So large a population as this, mostly born in freedom and growing up for thirty-five years in contact with American civilization, could not fail in that length of time to differentiate itself into classes of varying character and ability, illustrating many different grades of progress. No careful observer can deny that this differentiation has taken place. The more hopeful classes may still be small relatively to the whole mass of the negroes, but they are too large absolutely, and they are potentially too important a factor in the solution of the great problem, to be safely ignored.

With full recognition, then, of the varied forms of educational effort needed and with no desire to disparage any of them, let me come to my task of presenting the practical value of the higher education. And I will ask you to measure this value as related, first, to the individual negro himself, and second, to the social group or mass of negroes of whom the individual forms a part.

For the individual negro who so far rises above the common mass of his race as to be fitted to receive it, I believe that the higher education has a preeminently practical value.

If the term "higher education" needs definition, let me say that I have in mind such education as an average white boy gets when he "goes to college." I mean a curriculum in which the humanities are prominent and in which intercourse with books and personal contact with highly educated teachers constitute the chief sources of power. Let us, furthermore, understand such a curriculum to be handled not in any dry-as-dust spirit, but with the most modern methods of teaching and with the most direct and practical application to the needs of modern life as they will be encountered by the students pursuing it.

INDIVIDUAL OPPORTUNITY.

There is a practical advantage in the mere offering of such an educational opportunity to the individual negro of exceptional ability. So long as it is denied he will ask, "On what ground do you set a limit to my educational progress?" If we answer "Because the masses of your race are not fitted to take a college course," he can reply, "That is a principle of exclusion which you do not apply to your own race, and why should you apply it to mine?" If we say, "Because we doubt your individual ability to take it," he may answer, "That is a matter which only a fair trial can determine, and I ask the privilege of testing my ability as an individual." How can you justly refuse such a plea as this? If the claimant really has exceptional ability he ought to have the exceptional opportunity. If he does not possess such ability it is still worth something to set before him the open door of the higher education, for then, if he does not enter it, the responsibility is entirely his own. In education there is no principle more just or wise than this: To every negro youth, as to every white youth, an educational opportunity commensurate with his ability as an individual.

Let us not forget in this connection to how large an extent it is in the province of all colleges to discover talent. For many boys and girls the studies of the grammar and even of the high school are insufficient to reveal their most marked aptitudes and point out the most promising path of usefulness. It is only as they are confronted with a college curriculum that this revelation is made in the case of very many. It is sometimes said that any bright negroes in the South who want a college education can come to Northern colleges and get it. This may be true as regards the very brightest who can feel the attraction of an educational opportunity a thousand miles away and obtainable there only at high cost. But for a much larger number, only the inexpensive college of the vicinage, within easy reach of home, can either discover talent, or train it when discovered.

TEACHING TO THINK.

A very practical service which a college education renders to the individual negro is to teach him to think. The power of rational thought is one which the past history of the race has not tended to cultivate. Neither savagery in Africa nor slavery in America were favorable to it. As a slave the negro was trained not to think. The thinking negro was a dangerous negro. The master and the overseer did his thinking for him, regulating his movements and planning his work, and the more the negro surrendered his self-direction and became a facile machine in their hands, the better slave he was. This is an unavoidable feature in every system of human slavery.

But the moment freedom begins and the responsibility for one's life and work is transferred from an outside authority to the individual himself, the power of

rational and consecutive thinking becomes an absolute necessity. It is the lack of this power which constitutes one of the chief elements of weakness in the negro of to-day. The studies of the usual college curriculum are especially fitted to develop it. Slavery did much to make the negro a worker, and since slavery ended we have all been very properly concerned to make him more and more a skilled worker. But we have been far too little concerned to make him a careful thinker.

Incidentally to this, a very practical advantage which comes to the individual negro through a college education is the discovery of how large a part of the world's work is performed by the world's thinkers. The delusion that work of the hands is the only work worthy of the name can not remain long in the mind of a college student. In the study of history, and science, and language, and philosophy, and mathematics, he discovers again and again how the chief workers in those fields have been foremost among the promoters of the world's progress, ever cooperating with and stimulating the work of the hand workers and often exceeding them in the severity of their toil. It is not too early for the negro to learn that some of the opportunity and responsibility for the brain work of the world belongs to him, and that in proportion as he is able to embrace it and use it well will his race achieve a symmetrical development of its powers, more nearly approaching that of other races, and so gain more and more the respect of their fellow-men.

NEED OF INCENTIVE.

But the individual negro needs not only opportunity and training for working with both hand and brain, he also needs incentive for working, and the highest kinds of incentive. If anything, he needs incentive more than he needs opportunity. There are numerous opportunities open to many a negro which he fails to utilize simply from lack of incentive. He is too easily content with his low estate, and has too little ambition to improve it. There is probably not a negro in the South who does not have the means, the skill, and the time, which constitute opportunity, for making his condition less wretched than it is, if he wanted to. But the trouble is he does not want to, and never will want to until sufficient incentives are set before him. It is a good thing to present the incentives of material comfort and financial prosperity—to tell the negro he can have a better house and a more productive farm and an account at the bank, if he will only bestir himself; these are all worthy incentives for effort, but they do not go far enough. It is as true of the negro as of any other human being, that the life is more than meat and the body than raiment, and that a man's life consisteth not in the abundance of the things he possesseth. Does it not behoove us, then, to awaken within the negro's soul the desire for a better life for himself and family in that better home, whenever he shall get it, and to stimulate a craving for higher pleasures than those of the body, to the gratification of which he may utilize his abundant harvest and his growing bank account? Many a negro already has more of this world's goods than he knows how to use wisely, either for himself or for others. Making a livelihood is important, but realizing a wholesome life is more important. The "plain living and high thinking" of our homespun ancestors in New England and Virginia is a worthy object of aspiration to set before the American negro of to-day. From the colleges and universities it came to our ancestors, and from colleges and universities it must come to the negro. And as it comes, his incentive to work, with both hand and brain, for both the material and the spiritual progress of America, will be increased.

But it is time to turn to the second part of our subject.

THE EXCEPTIONAL NEGRO AND THE MASSES.

In a recent address President Tucker, of Dartmouth College, used these words: "I believe, with a growing conviction, that the salvation of the negro of this country lies with the exceptional men of that race." These words of President Tucker concisely express the truth which explains the practical value of the higher education to the negro as a social group or mass of which the individual forms a part. In showing how college training is of practical advantage to the individual negro, in enabling him to discover and train his highest powers, and in furnishing the most potent incentives for their use, we have by no means stated the strongest reason for such education. A much stronger reason is to be found in the relation which the college-bred negro holds to the masses among whom he dwells and works. The masses may not be able to go to college, but they may send their representative to college, and when he comes home they may be wise by proxy. This does not mean that they are all going to learn Latin and Greek from their representative or make him a little demigod of culture for their worship. But it does mean this: That in every community of negroes it ought to be possible for the common people, occasionally at least, to look into the face of a college-bred man or woman of their own race and catch something of inspiration from his high attainment. Currents of culture and progress are ever being set in motion among the masses of mankind by this sort of educational induction, even where no direct efforts are put forth to that end.

But the opportunity for the direct and positive activity of the college-bred negro in promoting the elevation of his own people is of the most varied and striking character.

NEGRO PUBLIC SCHOOLS.

Consider the matter of popular education in the public schools. The South has separate schools for the two races, and custom requires that the teachers of these schools shall be of the same race as the pupils attending them. The 30,000 negro public schools, on which the Southern States are spending six and a half million dollars annually and have spent over a hundred millions since 1870, are greatly weakened and the vast sum of money spent on them wasted because of the inefficiency of the negro teachers. To stem this great tide of waste and to provide teachers of the desired efficiency there is no influence more potent than that of the negro colleges in the South. The graduates of these colleges not only teach in these schools, usually filling the most prominent positions in them as principals or otherwise, but they are also teachers of teachers, a single individual often numbering the teachers whom he has trained for other public schools by the scores and hundreds, and the pupils thus reached at second hand by the thousands. One graduate of Atlanta University has trained 200 teachers, who in turn are instructing 10,000 children.

These college graduates are also prominent in organizing and maintaining State associations of negro teachers, and in conducting, under the direction of State superintendents of education, the summer teachers' institutes which are fostered by appropriations from the Peabody fund. In one case a negro graduate has served for eleven years as a member of the city board of education by appointment of the mayor and aldermen in a large Southern city.

RELIGIOUS WORK.

The religious work of the race presents another most important field of activity for the college-bred negro. While slavery lasted the negroes in many localities shared the religious privileges of their masters, and listened to the sermons of educated preachers. With the advent of freedom, and the inevitable separation

of the races in so many of the relations of life, the negroes very naturally organized churches of their own, to the pulpits of which they called men of their own race, in most cases with little or no preparation for their work. Though some advantage was gained in the assumption by the negroes of the responsible management of their own church organizations, there was an undoubted loss for the time being in the character of their religious and moral training, and it is not unreasonable to suppose that to this, among other causes, may be attributed the criminal tendencies of the race in their new life of freedom. While the character of the negro ministry is gradually improving through the accession of better educated men to their ranks, the supply of such men is far inadequate to the need.

OTHER PROFESSIONS.

As physicians, too, college-bred negroes find an important field of usefulness. Aside from the ordinary round of their medical practice, they are needed to foster the work of hospitals and training schools for nurses among their people. They can also do much in instructing their people in matters of hygiene, in improving the sanitary condition of their homes, and in the proper care of young children; thus helping to reduce the excessive death rate of the negroes. In much of this work they can accomplish far more than white physicians working among their race could do.

The opportunity for the college-bred negro in the legal profession is not so large, nor the call so urgent as in the occupations already considered. But in proportion to their numbers the few college-bred negroes who have become lawyers are having as successful and useful careers as the members of other professions.

Some editors, too, must be supplied by the negro colleges, and these, in cooperation with the lawyers and ministers, will be more and more needed as the race progresses to foster a wholesome public opinion among the negroes, to elevate the character of their citizenship and harmonize their relations with the white race.

SELF-REGENERATION OF THE RACE.

Another field of activity which loudly calls for the attention of all college-bred negroes, whatever their specific occupation may be, is the matter of organized efforts for their own social uplift. In every considerable community the negro teachers, ministers, doctors, lawyers, editors, and others occupying prominent positions have it in their power, by united action, to promote efforts for reform in such matters as temperance, purity, the improvement of home life, the training of children, the provision of wholesome amusements, the organizing of reading clubs, debating societies, and lecture courses, and in general so ministering to the higher life of their people as to help them to stem the tide of animalism and materialism that is ever threatening to sweep them away. Considerable of this work has already been undertaken with fair success, generally under the auspices of the negro churches, secret societies, and other beneficial orders. But the organizing power of the negroes is still in a somewhat crude stage, and greatly needs the enlightening and directing influence which the college-bred negroes can furnish, and are already furnishing to an encouraging extent. And herein appears another very practical advantage of the higher education of the negro, in that it is helping him to do for himself that which many have supposed only the white man could do for him. We have too long failed to recognize the tremendous power for the self-regeneration of the race to be found in the race's highest class, and in the aspiring members of its middle class. The discovery and equipment of this power is one of the very practical services rendered by the colleges for negroes.

AN APPEAL TO FACTS.

A striking confirmation of the positions taken in this paper is to be found in the results of a careful investigation into the careers of college-bred negroes under the direction of Dr. W. E. B. DuBois, as brought out at the Fifth Annual Conference on Negro Problems, recently held at Atlanta University.[a]

Since 1826, 2,414 negroes have been graduated from college; most of them since 1870, and for the last six years to an average number of about 130 a year.

With few exceptions these negro college graduates have found work as teachers and professional men and also in newspaper work, business, farming, and the trades. Returns from some 600 show an individual holding of real estate of an average assessed value of nearly $2,500.

Returns from more than half of all these graduates show that 55 per cent were teachers; 19 per cent ministers; 6 per cent doctors, and 3 per cent lawyers, or 83 per cent engaged in teaching and the professions.

Ninety per cent of those graduated in Southern colleges remain and work in the South, while fully 50 per cent of those graduated in the North go South and labor where the masses of their people live.

To the question: "Do you vote?" 508 answered "Yes," and 213 "No." To the question: "Is your vote counted?" 7 said "No," 61 were in doubt, and 455 answered "Yes." To the question: "Are you hopeful for the future of the negro in this country?" 40 were in doubt, 52 said "No," and 641 answered that they were hopeful.

May we not safely conclude that the negro college graduate as an individual is a good breadwinner, thrifty property holder, and conservative citizen, and that as the exceptional man of his race who has enjoyed exceptional opportunity, he is devoting himself in a very remarkable degree to the forms of service most adapted to the uplift of the masses in intelligence, morality, and good citizenship? What can be more practical than an education that secures such results as these?

I plead for a larger faith in the exceptional negro—a larger faith in his capacity as an individual, and a larger faith in his power as a regenerator of the masses of his race, on whom we should seek more and more to shift the "white man's burden."

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[a] See the preceding pages (191-224).

CHAPTER IV.

FRANCIS WAYLAND PARKER AND HIS WORK FOR EDUCATION.

INCLUDING AN ADDRESS BY HIM ON THE QUINCY METHOD, AND AN ACCOUNT OF THE COOK COUNTY NORMAL SCHOOL.

CONTENTS.—Francis Wayland Parker, by Wilbur S. Jackman.—Address on the Quincy Method, by Colonel Parker.—The Quincy Movement, by Nicholas Murray Butler.—Colonel Parker and the Quincy School, by William T. Harris.—An Account of the Work of the Cook County Normal School, by Colonel Parker.—Memorial addresses, letters, etc., by William R. Harper, Albert G. Lane, John Dewey, Emil G. Hirsch, W. T. Harris, A. S. Draper, Jenkin Lloyd Jones, Alexander Graham Bell, John W. Cook, Nicholas Murray Butler, G. Stanley Hall, Orville T. Bright, and Bishop John Lancaster Spalding.—An estimate of Colonel Parker, by William R. Harper.—Francis Wayland Parker, by Frank A. Fitzpatrick.

FRANCIS WAYLAND PARKER.[a]

[*Late director of the School of Education, University of Chicago.*]

By WILBUR S. JACKMAN,

Dean of the School of Education.

[BIOGRAPHICAL NOTE.—Francis Wayland Parker, who died on March 2, 1902, was born in the village of Piscataquog, N. H. (now incorporated with the city of Manchester), on October 9, 1837. His ancestry was of the strong New England stock, and in every strain of it there were ministers and teachers. His early education, which he received in the village school and at a country academy, was of the scantiest. In 1872-1875 he attended King William's University at Berlin, but he was in a true sense a self-educated man. From his sixteenth to his twenty-first year he taught with marked success in various places in his native State. In 1858 he took the principalship of the public school at Carrollton, Ill. When the civil war broke out he returned to New Hampshire and joined the Fourth New Hampshire Volunteers, not having been able to enlist in Illinois. Entering the Army as first lieutenant, he left it at the close of the war as colonel. Many avenues of success, political and financial, were open to him at the close of his military service, but he remained faithful to teaching, his chosen profession. "I do not remember the day," he afterwards said, "when I did not believe that I should be a teacher." He first attracted wide attention by his reform work as superintendent at Quincy, Mass., from 1878 to 1880. In 1880 he was made one of the supervisors of schools of Boston. From 1883 to 1899 he was principal of the Cook County (afterward the Chicago) Normal School. This position he resigned to assume the presidency of the Chicago Institute, the pedagogic school founded by Mrs. Emmons Blaine. When, a year ago, the institute became a part of the University of Chicago, as the School of Education, Colonel Parker remained at the head of it as director. Colonel Parker was twice married—in 1864 to Miss Phene E. Hall, of Bennington, N. H., and in 1882 to Mrs. M. Frank Stuart, of Boston.]

Colonel Parker's entire philosophy and practice of education rested solely upon the theory that democracy furnishes the highest and best type of government for an enlightened and self-respecting people. From this pregnant germ grew everything that he thought and did in the class room. His conception at once connected his ideals as a citizen with his motives as a teacher, and it linked the destiny of the country with the fate of the schools.

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He never failed to inveigh against the selfishness of aristocracy. "Its design," he said, "is the complete subjugation of the masses to the domination of the few; its methods, to prevent human souls from seeking and finding the truth." He believed that its methods of mystery, of force, of keeping the people in ignorance, of isolation of the people into classes, of caste formation, of class education, are all diametrically opposed to the great axioms of democracy. Holding that the motive controls the method, it was manifestly impossible for Colonel Parker, directly, to import and incorporate with his own the methods of any foreign educational system. An aristocracy seeks the perpetuation of an existing state through an appeal to history and tradition; he labored rather for a continuous evolution by turning the whole people back upon the original springs of nature for a constant clarification of insight and renewal of strength.

From the principle that society can rule itself, it was but a short step to the proposition that the child must be made free and kept so, if his life is to contribute to the growth of democratic ideals. The application of this doctrine in the everyday life of the pupils was the source of some of the most serious misunderstandings that ever arose in connection with his school. It was only natural that the sudden emancipation of the children from the arbitrary rule of average schools, and from that of many homes themselves, should lead to some boisterousness, and even license. The unaccustomed privileges of freedom often gave to the school a semblance of disorder. This was shocking indeed to the nerves of the stickler for "discipline," who could not penetrate through the unessentials, which appeared conspicuously on the surface, to the real, growing, and harmonious life below. But in the face of ridicule, sarcasm, and unmeasured denunciation, Colonel Parker never winced, and his faith never faltered in the ability of the child, under natural and normal conditions, to govern himself. He did not countenance and encourage license, as the shallow observer was apt to suppose; he believed, however, that complete and untrammeled freedom in the end would lead to the best possible government. As opportunities occurred in the administration of the school, he tried to show how inevitably great burdens of responsibility must rest upon the shoulders of the truly free. No one who witnessed it can ever forget the scene as he used to rise at the close of the "morning exercise," just before dismissing the pupils for the day's work, and say, "What is the great word?" Instantly the answer would come back from the whole school in a happy shout, "Responsibility." Bending forward in a listening attitude, he would say, "I scarcely heard it; say it again." Twice and thrice would the word be repeated with deafening vehemence. Then he would add, "Yes, that is it; this little boy right here before me, this little girl, each one is responsible for the whole school to-day," and with an answering smile they appeared to assume the trust. The war waged upon Colonel Parker was not upon trifling details; it was upon the fundamentals in human life. Through their instincts the politicians at least dimly foresaw the result upon their own ambition if childhood were to be allowed this sweet taste of freedom; hence they and all other manipulators of men fought him as for their lives.

The freedom of the child means an emancipated teacher. Colonel Parker iterated again and again that nothing should be allowed to stand between an individual and success but himself. This brought him into immediate conflict with superintendents, boards of education, political machine men, and with the whole fraternity of ax-grinding timeservers that infest the earth. With eagle vision and lion-hearted courage he penetrated their best-laid plans and met them at every turn in relentless opposition. Enraged at defeat, they called him a despot and sneered at his ideas of democracy. To the teachers who stood behind the walls, which he with sleepless vigilance patrolled, he presented a totally different aspect. Toward those who were trying to use the individual freedom

which he strove to assure, no one could be more forbearing or patient. For Colonel Parker the world of thinkers divided itself into just two classes, those who could see a principle and those who could not. With the former he was willing to work side by side, and endlessly, all as privates in the ranks; with the latter, in thought, he had but little in common. His constant exhortation was to work from principle and have the courage to be crude. There was no work so raw or imperfect in which, if the teacher could demonstrate its alignment with law, he would not take the profoundest interest. There was no teacher who brought to his labors the spirit of a discoverer who could not rely implicitly upon his unyielding protection and support.

This attitude toward the members of his faculty again gave rise to apparent confusion and to strange misunderstandings. The ordinary signs by which people long have been taught to recognize the so-called system or plan of the school routine were almost entirely wanting. It seemed difficult for the lay mind to understand how there might be unity of purpose underlying such great dissimilarity of method. In the majority of schools it has been the custom for some one, usually the superintendent or principal, to set and control the pace of the teacher by imposing a modus operandi, which all are expected to follow. Hence the prevailing idea of system, hence the ease with which most schools can produce and print a "course of study," while Colonel Parker could neither exhibit the one nor formulate the other. In his school methods varied, not only with the different teachers but with each teacher they changed from day to day.

The children were taught that they could and did promote themselves. There was no system of arbitrary marks and absolutely no records kept that attempted to give the pupil's standing in numerical terms. The records that were esteemed as having value were in the forming of the pupil's work itself. Great care was taken of the writings, drawings, models, and other products of hand work that were prepared in connection with the different subjects. These were preserved in the school and finally sent to the parents as the best evidence of the pupils' advancement and skill.

With the feelings of reciprocal usefulness that were cultivated by the teachers and pupils, and which grew out of the freedom that all enjoyed, it was inevitable that the school should become a highly developed social organization. More than a decade ago Colonel Parker wrote:

> The social factor in the school is the greatest factor of all; it stands higher than subjects of learning, than methods of teaching, than the teacher himself. That which children learn from each other in play or work, though the work be drudgery, is the highest that is ever learned * * * This mingling, fusing, and blending give personal power, and make the public school a tremendous force for the upbuilding of democracy.

The surface test which he always applied in determining the social condition of the school at any time was that of genuine happiness, which the life of the place expressed. He felt that without happiness the best work was impossible and, conversely, that actual work under normal conditions always resulted in happiness. He often told the school that when he could raise the money he proposed to endow in his faculty a chair of fun, but the teachers and pupils seemed to feel that while his buoyant spirit was with them there was for this no urgent necessity.

"The socialization of the school" is a hackneyed phrase that threatens to become cant before its real meaning is understood. Colonel Parker held that it could be wrought out only through a free interaction among the pupils and teachers, whose experiences, based upon natural activity, were being developed through educative work under normal conditions. The highest type of social life consists of more than a mere aggregation of individuals endowed with social instincts. Hence it was that he gave such tremendous support to all the means that could be devised

for keeping his whole school in continual and intimate contact with nature. The city, especially the slums, was not the ideal place, in his judgment, for the growth of the best social type of the individual or of the group. He preferred, rather, the country, not only because he regarded pure air and sunshine, and all of nature's influences, essential in laying the physical foundation upon which the teacher should build, but also because he believed that the child, from its earliest years, should be subjected to those original and potent spiritual influences which seem to emanate, without the intervention of the teacher, from nature herself. In support of this belief he continually cited the experience of his own childhood, and the dream of his later years was that his school might have the freedom of a farm. It was in spite of discouragements and opposition, which few can understand, that he therefore gave the school excursion practically the precedence over every other exercise on the programme. To the same end, Colonel Parker was earnest in his efforts to bring the work of the class room into keeping with the actual interests of the home. The value of the instruction was to be determined by its effect upon the children in their daily round of duties outside of school. If it made them more polite, more anxious to take cheerfully their share of the family tasks, and generally more sensitive to all the demands that community life places upon the individual, then the school might be considered as accomplishing its true purpose. There was constant effort to keep the pupils in vital touch with all the industrial and commercial enterprises to be found in the surrounding community, and everything possible was done to make them realize that they were actual participants in these activities.

In order to cement still more closely the union of the home and school, for eighteen years or more Colonel Parker organized and conducted parents' meetings. In these gatherings, through the work of the children, by expositions on the part of the teachers and by round-table methods, he sought to acquaint the community with his aims in education and with what was being done for the pupils. It was through the knowledge of his principles and work, largely thus diffused, that he slowly fortified himself in that public sentiment which more than once rose in its might and saved him and his school from the designs of the charlatan and the spoilsman.

It was one of the theories of the school that the devotion of the strong should be placed at the service of the weak. This service was desired not more for the sake of the weak than it was for the strong themselves. As a result, many a defective or incorrigible, so called, found a refuge within its walls. There was constant experimentation to find out what might be done for such children. The boundary line between those that were normal and those defective was being continually resurveyed; and it was these unfortunates, often, that called for the highest exhibition of the genuine social feeling.

The great emphasis which was placed in the school upon the necessity of having one's knowledge expressed through service, and the large attention devoted to the development of the means whereby it could become immediately available, gave rise to rather a widespread notion that Colonel Parker placed a low estimate upon knowledge. This, coupled with his open contempt for the antiquated methods that prevailed, as he suspected, even in universities, led many to believe that he despised higher education. Nothing could have been further from the truth. "Knowledge for the sake of knowledge" represented to him a selfish hoard. Art for art's sake typified meaningless expression. The plan, however, upon which his school was built made incessant demand for a course of study rich in subject-matter. Everything that existed in nature he sought to place at the disposal of the pupils. No query from the students was ever passed by unnoticed. Thousands of carefully selected volumes formed a working library that was at the constant service of all the pupils in the grades and the students in the peda-

gogic school. Chiefly through the efforts of Mrs. Parker, in the beginning, large numbers of pictures, covering a world-wide range of subjects, were mounted and classified and used in the greatest profusion in the class rooms. Exhaustive lists of references to both books and pictures, which put the learner in touch with practically every phase of his subject of study, were being continually prepared by the librarian. The school museum was filled with hundreds of specimens arranged in series and groups illustrative of facts in nature, and also with the products of art and industry gathered from all corners of the globe. Through these, and in scores of other ways, as means of acquisition, Colonel Parker gave indisputable evidence that he placed the highest estimate upon knowledge and culture. The effect upon his students was marked, the uniform testimony of those with whom they came in contact being that they were filled with an earnest and intelligent desire to know.

With such enlarged opportunity for acquiring knowledge and the high motive for its use, a wide range of expression became a necessity. Among the first to introduce manual training in the grades, he followed this with all the "fads" as rapidly as he could secure instructors to give him the proper assistance. The work was begun with teachers unskilled in their art, but they gradually became trained through their work with the children. In the face of the bitterest opposition he toiled with boundless patience until drawing, painting, clay modeling, and making, all became established as integral parts of the curriculum, and he lived to see the day when the cry of "fads" was no longer heard in intelligent communities.

No less strong was the opposition which he encountered to his methods of teaching reading, writing, and number. It was his theory that these subjects could and should be taught under the impulse of intrinsic thought. He believed that, as modes of study and expression, they should be taught when the study of the central, or nutrient, subjects of nature and man demands their use, and his methods were based upon that belief. Consequently he rejected the idea that a set vocabulary must be acquired before a child should be allowed to read as a means of study. He also repudiated the notion that there must be the usual copybook training in the drawing of letters before the pupil be allowed to write. To carry out his method a printing press, established in the school and placed in charge of a practical printer, turned off, every year, hundreds of pages of reading matter for the children, which they themselves had derived from the different subjects studied. In regard to reading and writing, the practice of several years has amply demonstrated the truth of his theory; as to number, his prophecy is only beginning to be fulfilled.

In operating a school according to the plan developed under Colonel Parker, it is easy to understand why each member of the teaching force is compelled to be a close and persistent student. Under his conception—the child the demand, God the supply, the teacher the means—there is scarcely any limit that can be set to what a thoughtful teacher may do. With the inspiring stimulus of new visions revealed by a constantly receding horizon, it is small wonder if overwork and overstrain were sometimes found in the faculty as the result of a supreme effort to take just one more step in the field of discovery.

The ever-to-be-remembered weekly faculty meetings must take first rank among the various means of study that were devised for the teachers. For many years they were held on every Monday evening in the Colonel's own well-appointed home. After the day's work, settled comfortably within the depths of a great cushioned chair, with closed eyes, with the insight of a master, he reviewed again and again the entire work of the school. He was eternally going back for the principle that controlled the teacher's action, and woe betide the one who became weary in the search! The questions always were, "Are you headed right?" "Is

it quality or quantity that you are after?" "Are you trying to cover ground or to develop character?" "What have you to think about except the present needs of the growing child?" He was fond of saying, with Emerson, that heaven is quality. "The line of human progress is infinite, and we have but started. As yet we have but touched the hem of the garment; what we have done is as nothing compared with what we shall do if we persist in our study of the real problems of education." Under a continual fire of such interrogations and criticisms, expressed or implied, he sought to keep every teacher alert and keenly sensitive to all the possible influences that might be brought to bear for the good of the children and the school.

The teachers were also called upon to forecast their work, so that each might have an opportunity to study the whole in a proper perspective. These forecasts, in the form of outlines, syllabi, and general discussions, have been published for several years, first as leaflets, but lately in the more pretentious form of a magazine. This mass of material, in a constant state of ferment and evolution, is the nearest approach to a published course of study that the school has ever made.

It was inevitable that a school conducted upon such a plan as that contemplated by Colonel Parker should be confronted at once with problems in the adjustment of details with which the programme and methods of the old-school régime were utterly unable to deal. The theory of concentration and correlation seemed to offer the only possible solution. By the former he tried to focus the entire attention of every teacher, not upon the subject-matter to be taught, but upon the real goal—the development of character. Through a careful and judicious selection of the mental nourishment actually needed by the pupil at a given time he believed that the separate subjects of study, so called, would prove to be organically related, and also that a just recognition of their natural interrelationships would lead to a great economy of effort and to an immense saving of time on the programme. This is the essence of his theory of correlation.

The development of the theory of concentration and correlation gradually drew the teachers into closer and more harmonious relationships than usually exist in schools where the isolation of subject-matter is the rule. It tended to develop a spirit of consideration and mutual helpfulness in the faculty which greatly increased the happiness of each instructor in his work and added enormously to the influence of the school.

Behind the work of Colonel Parker lay the great background of his personal character. His dominating passion was his love for little children, and in his treatment of them he was infinitely tender and forbearing. He had a humorous side which always pleased them immensely. Often at the close of the "Morning exercises," rising, he would say, with impressive gravity, "Ladies and gentlemen!" adding, after a pause, "Am I right?" Then, following an affirmative chorus from the children, he would say, "That's all there is to it." He rarely was discouraged or depressed; a splendid optimism marked him under the most trying conditions. Surrounded by circumstances that developed Spartan traits, he never lost the buoyancy of youth. Superintendent Bright well said in an address over his bier: "He was such a boy; he was such a man!" It was his hopefulness as much as his courage that carried him through the years of struggle. He was a prophet and an inspirer of men, and he was also a mighty "Doer of the word." He brought things to pass, and it was through actual accomplishment that he inspired. Many who conceded his power to outline the larger aspects of a plan supposed him unable to descend to its particulars. As a matter of fact he was a master in comprehending and in handling the details of his own particular scheme, though for the minutiæ of the ordinary school machine he had the utmost contempt. Nothing from the kindergarten to the graduating class of teachers escaped his attention. Clear in his ideals, he had marvelous power of penetration

into a teacher's motives. Possessed of well-defined standards, with great accuracy he could gauge almost instantly the value of the teacher's efforts. In his care of the smaller affairs of the school he never became a purveyor of tricks. Why some of his critics should regard him as a huckster of devices is incomprehensible to those best acquainted with Colonel Parker in his work. Above all, he prized and cultivated to the last an open-mindedness and a hospitality toward new ideas. In his last faculty meeting, about a fortnight before the end, at the close of a clear and beautiful talk to his teachers, in which he exhorted them to seek patiently for the truth that he should not live to find, he warned them especially against a fixity of mind. He said: "I think I shall formulate a prayer; it will be, 'O, Lord, preserve Thou me from the foregone conclusion.'" The acceptance of any proposition as a finality was in his view a voluntary blocking of the way to new truth.

Colonel Parker's work to him is ripened fruit; to those who remain it should be a seed; his meridian is but the horizon line of those who follow. A blind worship is the greatest menace to true discipleship. It is natural, perhaps, for those whose lives have been enriched and uplifted by his ideals to desire to fix, as in chiseled stone, the life that once illumined them. But in the memory of those who knew him best his spirit will find no counterpart in marble or in bronze; rather will the similitude appear in the springing life of the growing seed, in the freshness of the unfolding bud, and in the verdure of the evergreen pine.

"THE QUINCY METHOD."

[Substance of an address delivered by Colonel Parker at the celebration of the twenty-fifth anniversary of the "Quincy movement," April 20, 1900.]

There was an opportunity, a sensible school board, a board that conducted its affairs upon sound business principles, upon a plan that has always, in all times, brought success, a plan that the entire business world unqualifiedly indorses. No other plan has or will ever succeed. To appreciate this famous board, it must be compared with other boards of the same functions. To have been for forty-six years a teacher of the common schools gives one a fair basis for comparison.

One of the profound mysteries in this world is the marvelous psychological change that comes over respectable, intelligent, and otherwise wise laymen when they are elected by their fellow-citizens to serve on school committees. Persons who would never dream of superintending an electric plant, managing a railroad, building a bridge over Niagara, leading an army, or commanding a ship enter upon the duties of a school committee with the astonishing presumption that they can with safety minister directly to the welfare of children, mold society into right living, and shape the destinies of a nation by means of common education; that they can make courses of study, select teachers, examine pupils, and manage the internal and pedagogical affairs of a school system. This prevailing state of affairs would be ridiculous were it not so awfully solemn. The presumption of school boards is the acute distress of the nation; it is the culmination of bad politics, the very worst by-product of democratic evolution. For this presumption millions in money are wasted every year, countless children suffer, and free government is imperiled.

The members of the Quincy board of education made up their minds, after the most careful and thorough consideration, that they were not equal to the task of managing the schools which the good citizens of the town had intrusted to their care.

It is often said that when a school board gives up its authority to an expert its duties are ended, that indeed it has nothing further to do. This was by no means

true of the Quincy committee. The superintendent was given full power to conduct the schools as he thought best. There was, however, one absolute requirement—he must succeed; and the committee was the judge of success or failure. Previous to 1875 the committee had examined yearly the schools in order to ascertain the progress of the pupils; now they proposed to inspect the schools to find out the efficiency or inefficiency of the superintendent; and well they did their work. What criterion they had, or upon what basis they estimated efficiency, is not known. Probably they estimated the real life of the school, the happiness and earnestness of the children, rather than technical details and quantity of book-work done.

The school board's most important task was to defend the schools and the changes in the work of the teachers.

Good people do not easily alter their ideals of education. I have sometimes thought that theology had the deepest and strongest hold upon the human mind, especially in New England; but that is not true; educational ideas are by far the slowest to change. Noah Webster is mightier than Jonathan Edwards, technical grammar than predestination. It is useless for anyone who attempts to improve education to complain; the right way is to recognize the situation and make the best of it. Human progress is measured by the time it takes for a good idea to get into life.

The board of education fought many battles, and fought them all with great earnestness and wisdom. One battle stands out above all others. The battle-ground was the old Town Hall, which was packed with eager voters. Late comers were obliged to stay outside, although it was a rainy day. Two thousand dollars a year seemed an immense sum for the taxpayers to spend for a man who walked or rode around from school to school. The leader in the campaign against extravagance moved a reduction of the appropriation that would cut off the man who amused himself by supervising the schools. The motion was carried with a rush. The second town meeting, succeeding the first by a few days, was extremely interesting. I shall not attempt to describe it—the memory of it always gives me a thrill. It was a battle royal for the little ones. I thought of the old days of Otis and Patrick Henry. At this meeting a motion was made to reconsider, backed by eloquence rarely heard in these days. Only the leader voted against the motion, and the original appropriation was carried without a dissenting voice.

The battle for the common schools is the battle for human liberty, and Quincy was fortunate in the defenders of that which lies at the basis of our Republic.

Permit me to interpolate a personal statement. I have been accused of fighting battles. It is not true; I never fought a battle, unless trying to teach school is fighting. The school committee did all the work of defense, and each member was a host in himself. The superintendent was granted the entire supervision of the town schools. The choice of teachers and their dismissal, the making of the course of study, the examinations, indeed everything that pertains to pedagogy, he relegated to his principals, and they in turn to their teachers. The tyranny of the superintendent consisted in demanding that every teacher should become free through self-effort.

The onus of all things disagreeable, such as the dismissal of teachers, the board took upon itself, merely asking the superintendent to make suggestions, which were sufficient for action. It gave generously an efficient support at all times; it did not hesitate to criticise, advise, or suggest. The first annual report was written under the frank and wise criticism of the committee; it was rewritten several times. The command was: "Make the people understand what you are doing." Through forty-six years I have never found another such efficient school committee.

The new superintendent had an immense faith in the possibilities of human growth by means of education, a faith which has grown with his years and is now stronger than ever. He had also a great faith in free government, brought about by educating children into freedom through self-activity. The battle for freedom, he thought, is not to be fought out in cruel, bloody wars, not by armies and navies, but in the common-school room, the camp and training ground for citizenship. The lessons of the civil war were to him lessons that taught how such awful horrors may be prevented by education.

Such faith led naturally to a spirit of work, of struggle, of research, of open-mindedness, for the truth. He had instinctively an all-controlling love for children and a strong desire to help them to good lives. Twenty-one years in the common schools as a teacher, including three years in country schools and three as principal of a normal school, had taught him very thoroughly the fact that he knew very little about the art of all arts. Every book upon education, printed in English, was on his shelves, but in them was scant knowledge of how to teach an American school.

I will not attempt to describe the educational situation in New England. One fact illustrates it fully: A diligent search was made on the rich and loaded shelves of Boston booksellers. One educational work, and one only, was found, a second-hand copy of Currie's Grammar School Education. Do not misunderstand. Very much had been done in building up the common school. Most school systems were thoroughly organized. That of Boston has furnished the pattern of organization for all time. There were excellent teachers, noble, disinterested men and women; but naturally tradition controlled, and there was a general, though unconscious, belief that most things in education were fixed and finished. Among thoughtful people, however, there were grave doubts as to the profitable expenditure of school moneys.

The superintendent had an overwhelming desire to find out what was true and what false, what should be eliminated and what brought into the lives of the children. He longed for an opportunity to study with thoughtful teachers, to study children in order to ascertain that which was best adapted to them. There was not one question of progress about which he was fully decided, except to study education with the right attitude toward genuine development. He found thoughtful teachers, some of whom had been doubting and studying for years, others who were ready to put themselves into the work with hearty zeal. The teachers—forty-two, I think, in number—formed a faculty for the study of education. The superintendent led them as best he could, getting from them far more than he gave. The authority he had received he relegated to them, and in return demanded close study, original thought, creation, observation, reformation, and independence. The teachers' meetings were the central means of movement. The superintendent trudged from school to school, watching the teachers, criticising them personally, holding conferences, and discussing questions. He taught in every class, over and over again, not by any means because he was a model, but because he wished to learn how to teach. It was exhilarating, delightful work, though filled with errors and doubts, crude, unformed, experimental, but withal progressive. He found genius among the teachers. One among the best has gone to her reward; she was a native of Quincy and a child of truth. There were very few teachers who failed of reelection. They tried, they struggled with the problems; some failed, but most succeeded. They were ever ready to take and use criticism, ever ready to acknowledge failure and to look for better things. I shall never forget them, that little band of heroes. I see them now, facing the children and the eternal questions.

What has been accomplished? I should be most happy this day to clear up some common errors that have crept into the general judgment. There never

was a Quincy method or a Quincy system, unless we agree to call the Quincy method a spirit of study and the Quincy system one of everlasting change. A method in teaching means to most people a certain way of doing things, a way fixed and finished; something that has a beginning and an end; something rounded, routinish, and efficient; a panacea, like a patent medicine, that may be applied with unfailing results. Method in this sense is the common and awful delusion of the present day. With the artist teacher method is the way he or she reaches an deal. Therefore method is entirely personal, ever changing, ever improving. Insight, elimination, improvement, are the elements of upward and onward movements. We, the teachers of Quincy as a faculty, wrestled with the greatest problem ever given to man. The faculty and its meetings brought inspiration, enthusiasm, help, and each teacher applied, in his or her own way, the things found developing personality and, therefore, personal ability.

Those who seek for some special and peculiar method or device in the Quincy movement will never find it. Faith, ideal, spirit, explain all that pertains to our success, whatever that success may be. The outcome was what may always be expected under similar circumstances—progressive movement. If you ask me to name the best of all in results, I should say, the more humane treatment of little folks. We tried to teach them, "not as children or as pupils, but as human beings." Each child has his own individuality, his stream of thought, his desires, his hopes and fears, his grief and joy. In school the child has too often a separate stream of thought, or a stagnant pool, totally separate from his real life. A child should have one life, wholesome and complete, and the home life and the school life should each supplement the other. However loving a teacher may be, the method of teaching rarely discloses a deep sympathy, which is the best there is in any teacher. We tried to make the children happy, so happy that they should love to go to school. The rod was well-nigh banished. The doctrine of total depravity will have much to answer for in the day of judgment. Flogging is the direct result of the belief that the child is innately bad, and must be whipped into goodness.

We know that the child is good, if he has a chance, an environment of goodness. This knowledge came to us from actual experience. One beautiful incident threw a flood of light upon the child's soul. Little Bumpus, who was blind, entered Mrs. Follett's class of 6-year-olds. Without suggestion, the dear little folks put their arms around him and said: "We'll help you." Humanity begets humanity. Children long for something to do, and they love right doing far more than they love wrongdoing.

The systematic cultivation of selfishness by bribery—per cents, material rewards, and prizes—was banished. The dark clouds were cleared away, and a higher motive, a nobler ideal, came into view. The humane treatment of children can not be brought about by any particular method. It must spring from a deep sympathy, backed by courage and skill. The old-fashioned, stiff, unnatural order was broken up. The torture of sitting perfectly still with nothing to do was ruled out, and in came an order of work with all the whispering and noise compatible with the best results. The child began to feel that he had something to do for himself, that he was a member of society, with the responsibilities that accompany such an important position.

I might end this description here, for I have told all that is essential. But there are mistaken opinions to correct, opinions that have done much harm. For one thing, we did not banish text-books; we added to them; change, not banishment, was the order. It was the custom for pupils to read through in a year one little book that a bright, well-taught child can read from end to end in a few hours, providing always that he is not disgusted with the contents. They learned the book, often by heart, from their older brothers and sisters; they could say every

word, chant it, sing it, repeat it in their sleep, behold it in nightmares. It did not require much wisdom or even common sense to furnish the children with all the best literature then published. The committee appropriated $500 for children's reading, and I spent it as best I could. I packed the precious freight of new books into an express wagon and drove from school to school, taking up books and furnishing fresh sets. The flood of literature for schools we have now is not twenty-five years old. The introduction of so-called supplementary reading now well-nigh universal, was then exceptional.

The spelling book was laid upon the shelf. Spelling was learned by the Quincy children in the same way that the human race learns to talk—by writing correctly and continually. Language was learned as it always must be learned—by using it correctly. Technical rules came in where needed. The alphabetic method was consigned to oblivion in obedience to commands from the highest educational authorities. The outcry against this defiance of nature had gone up for hundreds of years.

Learning by heart condensed and desiccated statements in geography and history was to some extent eliminated. Geography began with the real earth, and "mud pies" were introduced. I remember an old beehive stand just back of the Coddington School. The stand furnished tolerably good legs and framework. The top had been taken off and a molding table put thereon. With sand and images of continents we imitated the bees.

The committee said, "Three R's only," and I echoed it with the mental reservation that some day, please God, the children should have better nutrition than formal teaching. They should have the great book of the Creator, and learn from it that "Day unto day uttereth speech, and night unto night showeth knowledge." A naturalist took the principalship of the Willard School. He brought specimens of stuffed birds. One day Charles Francis Adams and G. Stanley Hall were visiting the school. On request the principal brought in a stuffed duck which the pupils had never seen. I asked the children (it was the third grade) to write about the duck. They went at it with a will, and their slates were soon filled with good writing, correct spelling, and withal excellent thought. The visitors watched the work with interest. Mr. Adams turned to me and said: "You are teaching natural history." "No," I replied, "this is language." So it was, with a bit of thought behind it.

The criticism was made on all sides: "The children are amused and happy; they love to go to school; but do they learn? Can they spell?" And so on. Many of you may recall the Norfolk county examination. George A. Walton (no better man could be found), under the direction of the Norfolk school committee, examined the schools of the county, town by town. The examination was in the so-called essentials, the three R's, geography, and history. John Quincy Adams gave $500 to have specimens of penmanship, number work, and composition lithographed. The results were published in a pamphlet. Figures gave the per cents, town by town. The towns were lettered A, B, C, etc., so that no one knew the particular town so lettered. The pamphlet created a sensation. Many declared that the examination was not fair. They were astonished at the results. Later on an edition of the report came out with the names of the towns given in full. Quincy had by far the highest per cent, and led in everything except mental arithmetic, and in that it stood third or fourth. This is the first time, so far as I know, that the foregoing statement has ever been made in public.

We learned that children may be hapy, may love to go to school, may never have a prize, reward, or per cent, and still learn. In fact, the reason why students manage to escape knowledge is that knowledge and skill are made the sole aims and bribery the means of learning.

I might fill hours recalling the memories of Quincy and its schools, but to what end? The apparent success of the movement is easily explained. There was the opportunity, a faith, a spirit of work, an enthusiasm, to find better things for God's little ones. The outcome can not be explained by methods, devices, and systems, by tricks of the trade, or by particular ways of doing things. What we did in Quincy was nothing new; it came directly from the great authorities in education. What we did is now well-nigh universal; but the mere following of authority, however good, does not always count for progress; repetition of devices does not necessarily bring improvement.

We stand to-day at the beginning of an educational movement that means the salvation of the world, and its elements are faith, spirit, open-mindedness, and work. The teachers are not responsible for what wrong ideas may exist, nor can school committees be justly blamed. The common school was born of the people, it is supported by the people, and its faults are found in the people. The people must demand, and they will receive; they must knock, and it shall be opened unto them. We are bound by tradition, by mediæval ways, and deeply-rooted prejudice. The good that has been done is simply a foretaste of what is to come. Our ideals are low. The future demands an education into free government, a strictly American education, an education to meet the demands of these times, with their world problems that are weighing us down, and the ever-increasing duties of citizenship. I repeat, not by the guns of a Dewey or the battalions of Roberts or Kruger must these problems be worked out, but in the common school, where the quiet, devoted, studious, skillful teacher works out the nature and laws of life, complete living, and the righteousness that is to be.

THE QUINCY MOVEMENT.[a]

[An address delivered at the celebration of the twenty-fifth anniversary of the beginning of the work of Colonel Parker as superintendent of schools, at Quincy, Mass., April 20, 1900, by Nicholas Murray Butler, now president of Columbia University.]

This is sacred educational ground. Around the shores of Massachusetts Bay the people's school has had its prophets and its martyrs. The nation's schoolmasters look back with affection to this rock-bound New England coast as the motherland of what they hold most dear. Here the makers of a commonwealth laid the foundations, steady and strong, on which a world has built. Here Horace Mann plead and exhorted that education might be real and that the public support of it might be both intelligent and determined. Here Eliot has finished an imperishable monument, more lasting than brass, which neither a countless succession of years nor the flight of ages can destroy. Here Parker first gained fame through service of childhood.

There is a letter of the younger Pliny to his friend Paulinus in which he insists that men should consider either the immortality of fame and work for it or the shortness of life and enjoy it. The Roman righteously preferred the former alternative. The modern sage finds the two not incompatible. He has banished asceticism as an incentive to virtue and enthroned a generous humanity in its stead. It is this humanity, broad, sympathetic, affectionate, which has given its fine emotional quality to Colonel Parker's work for children. One follows it not with the attention which is intellectual merely, but with the interest which is life. It bursts the bonds of convention and defies the trammels of tradition. It is real and vital. False ideals have often in the course of history made education an inhuman process. So it was in many schools of the Middle Ages, so it was under Sturm's dreadful curriculum at Strassburg, so it was a century ago when Pesta-

[a] Reprinted from the Educational Review, June, 1900.

lozzi was bending every energy of his great soul to reach the hidden springs of child nature. It is a tendency of teaching to harden into routine. The routine in turn becomes mechanical, and intellectual and moral anæmia follows of necessity. From this there is but one possible escape, the tonic and stimulating influence of new knowledge. The university teacher seeks this knowledge in his library or his laboratory; the elementary teacher must find it in the child. Colonel Parker's work is human; its constant inspiration is the knowledge which the child reveals.

This human quality, together with a passionate faith in democracy, which is based as much on intuition as on conviction, is the surest clew to an interpretation of Colonel Parker's life and influence. He has not only seen but felt that education can not be permanently bolstered up by artificial supports. No patent methods or devices will suffice; not even the powerful force of legislation will make the educational stream run uphill forever. It must spring fresh and pure from the hearts and minds of the people if it is to be unfailing, steady, fertilizing. So Colonel Parker has labored in season and out of season to reach the people themselves, the parents whose most precious possessions are yielded up to the school and the schoolmaster for weal or for woe. He has tried to bring them to a realization of what education means in a democracy, of their responsibility for the character and standards of the schools, of their selfish as well as their public interest in the results. In the same spirit he has appealed to the teacher to open his eyes to the dignity, the influence, and the importance of his work. He has called upon the teacher to leave off being a merchant dealing in information and to prepare himself to become a builder of human souls. These things he has done in the name not of any theory, or school, or sect, but of childhood.

Appeals such as these, if insisted upon and responded to, are, in any stage of the world's history, revolutionary in their results. All practical affairs have their ruts, with a strong predisposition in favor of continuing to follow them. Are not these ruts the results of experience, and is not experience the great teacher? It depends, as the French say. There is experience intelligent and experience unintelligent; experience reflective and experience unreflecting; experience open-eyed and experience blind. The former is a teacher, the latter a slave driver. An unexamined life is not worth living, as Socrates insisted. So an experience unquestioned and untried in the light of eternal principles is not a human experience at all. It is the experience of the mountain top on which sun burns and storms beat; the experience of the cliff over which Niagara pours; the experience of the tides as they rise and fall in obedience to a law of which they know nothing, not even its existence. Human experience of the genuine sort is quite different from this. It is inquiring, progressive, illumined by a knowledge of principles. It faces the present and the future, and it uses the past without adoring it. In this wise Colonel Parker began his work at Dayton. He questioned his experience, but it was dumb. He did not speak its language. He did not know enough. The years of study which followed pointed the way to the answering of his questions. Education began to loom large in his field of consciousness; history hinted at its deeper lessons; philosophy suggested principles of action. The town of Quincy, and through it the United States, reaped the benefit of the revelation.

It was an object lesson of striking significance to see this veteran soldier, with a German university career behind him, putting forth all his newly roused energies in behalf of the boys and girls of the elementary school. The change in them was startling. "Going to school ceased to be a homesick tribulation," wrote Mr. Adams. "The children actually went to school without being dragged there. The simple fact was that they were happier and more amused and better contented at school than at home." What had happened? Only the obvious, it seems, as we look back at it now. Mr. Adams has described it graphically and

concisely: "Education was to recur to first principles. Not much was to be attempted; but whatever was attempted was to be thoroughly done, and to be tested by its practical results and not by its theoretical importance. Above all, the simple comprehensible processes of nature were to be observed. Children were to learn to read and write and cipher as they learned to swim, or to skate, or to play ball. The rule by which the thing was done was nothing; the fact that it was done well was everything." How sensible, yet novel; how wise, yet how revolutionary! From the vantage ground of to-day it is easy to see that Colonel Parker was merely putting in practice here at Quincy a few fundamental principles of education and of psychology He was not devising methods or concocting ingenious devices. Methods and devices are small things and change with every individual who uses them. A principle is eternal and the parent of a hundred methods; but a cast-iron method is a principle's worst enemy. The teacher whose method is finished and complete has lost touch with human nature. Colonel Parker's principles have saved him from apotheosizing methods. It would show a truer appreciation of what happened here if we spoke oftener of Quincy principles and less often of Quincy methods.

Among cultivated persons there is a more or less widespread opinion that teaching power is declining. Our national journal of despair recently wrote this sentence in an important article on the decline of teaching: "No one, we suppose, will question that the number of great teachers is decidedly less than it once was, and that the depleted ranks are not being adequately filled up." [a] Without stopping to quibble about what is meant by a great teacher, I not only question the assertion, but deny it absolutely. There are more great teachers to-day than there ever were, and they are more widely distributed and exercising greater influence. It is true that the colleges and universities have not their fair share of them, owing to the passing influence of the lecture system imported from Germany, but even in those institutions there is more good teaching than there was a generation ago. The laudator temporis acti has in mind some one person whose loss he deeply feels, and generalizes from him alone. But north, east, south, and west teaching is constantly improving. It is based on more thorough scholarship, on stronger professional pride, or better special preparation. Where a quarter of a century ago there was one teacher who thought about teaching as such, and studied teaching, there are two score to-day. The Quincy movement was typical. Similar awakenings have come to hundreds of American communities, and he who runs may read the results. When the history for the spread of the new educational spirit comes to be written, Colonel Parker's contribution to it will be honorably remembered.

It was a wise saying of Emerson's that "it is essential to a true theory of nature and of man, that it should contain somewhat progressive." Colonel Parker's principles and insights have not stood still. They have ripened with the years and they have grown fuller and richer with use. A vast city has recognized them at work among its teeming thousands; villages and towns in near and distant States have caught them up and applied them with delight. They are not final; that would be their death. They are only an honest, courageous man's badge of service to his fellows and to his fellow's children. May he long be spared to wear it!

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[a] The Nation, March 8, 1900, p. 180.

COLONEL PARKER AND THE QUINCY SCHOOL.

By William T. Harris, LL. D.

[An address delivered at the celebration of the twenty-fifth anniversary of the inauguration of the Quincy movement, April 20, 1900.]

It is not often that a hero, at least in education, hears his praises sung; he usually hears plenty of dispraise from his contemporaries, and it is only the after generations that celebrate him. But it is more pleasant to recognize the services of one who is still with us, and even in the full career of his life work. Let us all hope that the just recognition of the services of Francis W. Parker will inspire him to still greater efforts under more and more favorable conditions.

In this brief contribution to the reminiscences and congratulations of this occasion it is well to recount the reasons which have led me from the beginning to place a high value upon the results of the Quincy movement, to esteem Colonel Parker as a man, and to honor his friends and supporters. The movement is a reform instead of a revolution. It reforms a practice widely prevalent throughout our land, which is pernicious in manifold ways. It attacks the slavish use of the text-book, which has been content to accept verbal memorizing without verification and without understanding. Instead of the method of investigation, by which the pupil is made to go over again the steps which led to discovery, instead of the method of criticism, which tests each item of knowledge and translates the new and unfamiliar by what is already in the experience of the child, there has prevailed the method of authority, which has prescribed for the pupil the implicit acceptance of dead results, and the adoption of opinions without insight into their grounds. That such a method is stultifying has long been known. It represses intellect; it represses individualism. The teacher is made a mere oracle and the pupil an humble follower; the teacher a fugleman and the pupils obedient repeaters. The freedom of the original discoverer ought to become the freedom of the teacher who sees again the light of the truth—and his freedom the teacher ought to make again the freedom of his pupils, enkindling in their minds the power of seeing the truth for themselves. The true method of the school is the method of enlightenment, which comes of self-activity and original investigation. The wrong method is that of oracular authority, blind obedience, dead results, and superstition. Unless the pupil is made active to interpret the new knowledge in terms of his own experience, the school produces mental slavery.

Again, as to the discipline of the school. Order is heaven's first law. But an external order procured by violence is not educative, except in the way of producing rebellious reaction in the pupil. Heavenly order comes from enkindling within the pupil the spirit of order—the spirit which cooperates with fellow-pupils and the teacher in producing a reasonable result.

Of all countries in the world, America is the place where the schools should stimulate the children to self-control—to the love of order for its own sake. And it is one of the great glories of the Quincy method that it has always laid full emphasis on this. It has proclaimed, as if from the housetops, the doctrine that the school must be a delightful place for the children, a temple of freedom, wherein each one adopts all that is done by others as the expression of his own completed will—his own volition rounded to fullness by the volitions of his fellow-pupils and of his teacher.

Let us call to mind the primary object of the school, and ask the question how the perversion of its methods arose. Certainly the object of the school has been correctly described as a means of giving to the individual the power to add to his own experience the experience of others—that of his race. At least it shall give the pupil the power to help himself to these stores of wisdom, and there is no doubt that writing and printing has preserved this wisdom and disseminated it.

The printed page holds the results of experience of the past, and it holds the recorded observations and reflections of the present. It enables each one who can read to possess himself of the thoughts and opinions of the wisest and best, near and far. No wonder that the school makes much of the printed page, and especially in the border lands of the world, the countries recently peopled by migration from the great European mother nations. The continuity of American civilization can be preserved only by the printed page.

The oral teachers, numerous though they be, can give very little to their pupils compared with what these can learn for themselves by knowing the art of reading.

In a border land it is far more important that every child should learn how to read than in old countries possessing all the monuments of civilization. Here every child must become eye-minded as well as ear-minded. He must know language quite as well by the eye in its printed words as by the ear in its spoken words. It is evident that eye-mindedness has a certain great advantage over ear-mindedness, because the printed page will await on the leisure of the reader and permit him to stop and ponder over a weighty sentence until it becomes clear as noonday, while the attention of the hearer—the ear-minded—must be on the alert, and jump from word to word and from sentence to sentence, at the mercy of the speaker, without pause. To stop and reflect is to lose the stream of discourse. So, too, if one fails to catch the meaning at once, he loses the thread of the discourse.

What is profound and technical can seldom be taught orally. The individual can not learn the results of science and deep research if he is only ear-minded. To the eye-minded alone comes the ability to master by his own effort science and philosophy and systematic treatises—as well as great literature.

To change a people from illiteracy to a knowledge of letters, from ear-mindedness to eye-mindedness, from dependence on the living teacher which only the few can afford to have, to that independence of personal assistance which comes through eye-mindedness, has, from the beginning, been the great object of the American school. But it has struggled under a load of bad methods. First, there was the theologic method, modeled on the instruction of the pulpit, which has always been that of unquestioned authority addressed to implicit obedience. This method has demanded the verbal memorizing of the text-book. This method has been opposed by nearly everyone of the educational reformers, and yet it still exists. It is the besetting evil, and the most natural one. Because of the importance of becoming eye-minded and of imaging the printed word instead of recalling the mere voice-symbol addressed to the ear, let the pupil go at the book indiscriminatingly, and he will be sure to become eye-minded. So thought the teachers of the past generations; so think the majority of the present generation. It is the first crude thought of anyone who reflects upon it. He does not see in his mind's eye the large percentum of children who are made to hate the printed page and to loath human learning by this injudicious method. Nor does he see that the majority of the remnant, who accept gratefully what the school can give, are arrested in their development at the stage of verbal memory, and never get to become thinkers and original investigators. The educational reformer is needed in all countries and in all times, but he is nowhere needed so much as in America, where the printed page has such an important function to serve. The bad method defeats its own end. Instead of producing that degree of intelligent eye-mindedness, that can at once recognize in the written or printed words all their delicate shades of technical meaning, the bad method produces graphophobia, or hatred of printed words, or a glib process of parroting—i. e., of catching words by external form without becoming interested in their sense.

How many good teachers have fought these evils in method? But among them all I know of no more earnest protest than that of the Quincy movement, nor of

any such series of fertile devices for the prevention of disgust for the book and of parrot-like habits as those that have proceeded from the prolific brain of Colonel Parker.

All of his energy is directed to prevent spiritual death in the teacher, which ensues upon adopting habits of formal prescription or habits of arresting the activity at any mechanical stage of progress.

To this is due the fact that excellent teachers have proceeded from his training school. They have shown themselves full of resources to create interest among their pupils and secure enthusiastic self-activity. If a book could be filled with an account of all these devices, I believe it would be the best book of all those that have proceeded from the educational reformers. For most of those books have been negative—tearing down the existing pedagogy without offering an equally good system in its place. Colonel Parker, as we all know, is fiercely destructive of what he considers pernicious in school methods, but he is full of help for the novice or the unskillful, bringing both hands heaped up with ingenious devices to awaken interest and furnish enlightenment in those studies where dryness and dullness had prevailed before.

The public school has been much blamed for its discouragement of individualism among pupils. It is claimed that all its products are on the same pattern—machine made, like so many pins made by the factory.

I think, however, that the account of themselves given by our citizen soldiers educated at the common school does not show a lack of resources. Nor do our pioneers who go to the mining regions of the borderland compare unfavorably with adventurers from other lands in respect to their ability to govern themselves and overcome obstacles of nature. In fact, the versatility of the American pioneer always attracts attention and praise. See how the school aids in its development.

There are two ways of developing individualism. First, there is willfulness and opposition to established authority. Individualism of this kind does not lead to a rational life. It sets itself against the social whole, and society is obliged to crush it for the benefit of the public peace.

The second mode of developing individualism is by gaining power over the community, by learning to understand its motives and purposes, and learning the best means of helping their attainment. He who would be chief among his fellows must be the servant of all—that is to say, the one who aids the whole to its well-being.

In the school the child learns how to understand science and the conquest over nature by mind. He learns to command the service of nature, and this is one part of a healthy individualism. He learns, moreover, to understand human nature by the study of literature and history, for literature is wholly devoted to showing how mere feelings grow to clear ideas and to deeds. Individualism is, therefore, powerfully developed by the good school. It is strange to think of it, but it is true that the large school furnishes a better place for the development of individualism than the small school, for the large school must necessarily have a more carefully devised system of regulations in order to prevent the individual from colliding with the social whole, and the pupil comes to know how to get along without being crushed by his fellows, or, on his part, furnishing stones of offense for others. He has a better opportunity to study the art of combining one's fellow-men for reasonable purposes.

The child who has attended a good school has learned much of human nature, and, if it has gifts that way, has found means to learn how to govern others. It has acquired directive power. This is really a development of individualism. The frontier settler shows individualism in combating the obstacles of nature, but the boy or girl in the city that learns how to combine fellow-pupils and sway them shows a far higher degree of individualism.

The best thing that can be said of the Quincy movement is that it tends to create a healthy individualism among the pupils of our schools.

Small as it is, the schooling given by our nation to its people, some five years apiece, it suffices to make reading and writing universal, and with them also a limited acquaintance with the rudiments of arithmetic and geography. This is a beginning of eye-mindedness, which will grow throughout life by reason of the fact that everyone in this country becomes a reader of the daily newspaper. This is an important matter, and we can see it if we turn off our attention from the obvious evils of bad newspapers and think on the inevitable good that a newspaper civilization brings with it, for a newspaper civilization is one that governs by public opinion. No great free nation is possible except in a newspaper civilization and with government of public opinion rather than of a police system, for the newspaper creates public opinions and then makes it the ruler. It makes eye-mindedness forever necessary for all citizens. Thus the school suffices to produce a government by public opinion. Every citizen who reads the newspapers spends a portion of each day in contemplating world events and in discussing them. Thus each eye-minded person lives an epic life in the age of newspapers. The school likewise enables the citizen to readjust his vocation in an age when the industries that deal with the production of raw material are needing fewer laborers, and the skilled industries that manufacture these raw materials and transport them from the places where they are not needed to places where they are needed are demanding more laborers. The school enables the workman to learn how to direct a machine to perform his drudgery.

Great is the function of the elementary school in our civilization and blessed is he who improves its quality of instruction and brings in more humanity into its discipline and management.

AN ACCOUNT OF THE WORK OF THE COOK COUNTY AND CHICAGO NORMAL SCHOOL FROM 1883 TO 1899.[a]

By FRANCIS W. PARKER.

It may not be out of place for me, at this time, when I sever my connection with the school, to sketch briefly its inner evolution—how it rose from weakness and crudeness, by a zigzag route of experiments, failures, and successes, to the partial realization of a great ideal.

THE FACULTY.

The history of a school is the history of its faculty. The Cook County and Chicago Normal School is no exception to this rule. Dr. John Dewey says: "The school is society shaping itself." The function of the teacher, then, is to make life, society, the State, the nation, what they should be; and the function of a normal school is to train men and women for these duties, which are indeed higher and more important than all others. A normal school should have a much broader scope than the training of teachers; it should be a laboratory, an educational experiment station, whose influence penetrates, permeates, and improves all education and educational thinking. Hence the faculty of a normal school should consist of the very best teachers—best in education, best in culture, best in professional training, and best in experience.

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[a] Reprinted from the Parker memorial number (June, 1902) of The Elementary School Teacher and Course of Study, University of Chicago Press. An explanatory note by the editor of that periodical says: "This account of the normal school was written by Colonel Parker in the summer of 1899, soon after he had left the normal school to become president of the Chicago Institute. It was intended to form a part of the report of the city superintendent of schools. It may be taken as a brief but perhaps the best portrayal of his work in connection with the normal school that has yet been written. This is the first time it appears in print, this memorial number being thought a fit place for its publication."

It may be frankly admitted that our faculty did not reach this high standard of excellence. The best that can be said is that we fully recognized our immense responsibilities, and strove faithfully and earnestly to meet them. With us a faculty means a body of earnest, devoted students of education, who believe that human progress is coordinate with educational progress, and that human progress depends upon education as its fundamental and intrinsic factor.

Not to understand the history of education and, through it, all that has in the past been done for schools; not to know its reformers, its heroes, who bravely and wisely fought battles for the masses; not to be cognizant of the very important and interesting educational movements of the present day, would have been proof positive of our inability to grapple with the problems of education. But gratefully recognizing the wealth of knowledge, experience, and method which the past has brought, and comparing the achievements of the past with present human necessities and possibilities, it seemed to us true that education as a science was in its swaddling clothes; that genuine educative work in the schoolroom was comparatively meager; that the cause of this inefficiency sprang from the low grade of demands made upon the pupils; that the systematic cultivation of selfishness through bribery by means of rewards and per cents, and the improper stimulation by promotion, were immoral and often rendered nugatory the best efforts of the teacher; that education, as it was, aimed, for the greater part, at the development of verbal memory, with too little regard for the evolution of thought power; that the training of the will was left in abeyance; that the children had little opportunity to choose and execute for themselves; that their reasoning power was not appealed to through the imposition of responsibility; that education was too often mental and moral starvation; that the needs of the body were neglected; that the mind content was sacrificed for vague word images; that the moral power was not strengthened as it should be, owing to the lack of proper opportunity for moral action; that the common schools were not adequate to the demands of self-government; that vast sums of money and much toil and drudgery were being expended for schools, with very scanty results; in short, that education left much to be desired, and that by the proper means it could be infinitely improved.

This arraignment applied generally, though there were, it is true, many bright spots all over our land. Thousands of teachers were earnestly and honestly searching for that which would make education more rational and effective.

We went to work with enthusiasm and earnestness, determined to solve some of the immediate and pressing questions of school economy. Once a week, for two or three hours, we met to discuss questions that were forced upon us by our daily teaching and training. Every teacher was required to explain his teaching and give reasons for it. He was also required to criticise all the instruction and plans of order that came within his observation. He was asked to present suggestions, new plans, and devices which, in his opinion, would improve the school. When the printing establishment became available, each teacher made out a syllabus, which was printed and distributed for study and discussion at the faculty meetings.

The regular faculty meeting was by no means the only meeting. The heads of departments held many conferences, and the grade teachers had their meetings to discuss questions of daily work.

Each teacher was expected to penetrate and permeate the whole faculty and the whole school with the intrinsic value of his subject and its relations to all other subjects, and to discover in what manner his specialty might enhance the value of the rest of the work. Our aim was to establish perfect unity of action, consistent with the greatest personal liberty, recognizing that personal liberty is the one means of making the individual of worth to the mass. There was much friction and earnest and prolonged struggles, which were reconciled in the outcome

by oneness of purpose. Constant change, elimination, innovation, experiment, tentative conclusions—this was the manner of progress.

The teacher of teachers should be a great teacher in every sense of the word. He should be an earnest, devoted, open-minded student of education, with unbounded faith in possibilities; a person of marked wisdom, ready to abandon the useless and to adopt the useful; one not chained by prejudice or controlled by caprice; a person who "inherits the earth" through meekness and willingness to listen and understand, and who has, at the same time, the firmness and courage to withstand wrong public opinion and personal influence. The one thing, above all, by which the teacher of teachers exerts a powerful influence is the spirit in which he works. If he betrays a genuine hunger and thirst after righteousness, if he shows meekness and open mindedness and an overmastering love for children and all mankind, then his spirit passes over to the students and inspires them to do the best work of which they are capable.

Actual teaching is the culmination of the teacher's profession, but it is by no means the main or the most difficult part of the work. Finding and arranging subject-matter for the mental nutrition of every pupil and for all grades of pupils is the problem of problems. Old as most subjects are, the subject-matter of the fundamental thought-nourishing studies is quite new. Physiography, geology, biology, and other subjects of nature study present almost entirely new phases in the field of learning. Nearly all the eminent discoveries in the realm of science belong to the second half of this century; indeed, most of their inventors are still living, and some of them are comparatively young.

Knowledge in itself is one thing, and knowledge pedagogically arranged is quite another. The adaptation of both to the learning mind comes within the broad range of the teacher's art. An efficient normal school teacher not only discovers and arranges the facts of his subject for his immediate students, but for the city, the county, the State, and the nation. He must be a close student of his subject and be familiar with all the latest discoveries in his field. He must, to a certain and reasonable extent, verify his facts and then adapt them by a continued and continuous study of the children.

If a normal school teacher is burdened with many recitations, if he is obliged to teach various subjects, his energy is overtaxed, his time for study and research is lessened, and his work is weakened in every direction. As a result of overpressure he loses freshness, vigor, and enthusiasm. These facts are presented in order to explain that as a faculty we were too often restricted in our efforts by overwork and by the struggle to expend energy in teaching for which, in the very nature of the case, we could not be adequately prepared. As the work of the school progressed this difficulty was in some degree overcome. It is not easy to convince even an intelligent school board that the number of hours a teacher spends in the schoolroom is by no means the measure of his work.

This is a very brief and imperfect sketch of the duties and functions of our faculty as they presented themselves year after year of transformation "in the newness of light." Some of the faculty passed over, some left the school to assume other duties, while new ones came in to reenforce us. In June, 1899, there were two who were members of the faculty January 1, 1883. One of them had been a teacher in the Cook County Normal School six years when I took charge of the institution. I have never known a faculty so devoted, so earnest, and so self-sacrificing. I trust that some day its history may be written and published under the auspices of the alumni. In such a volume would be found the life record of some of the heroes and heroines of education.

The foregoing, I trust, has prepared the way for a description of our work.

THE PRACTICE SCHOOL.

Without the practice school we could not have taken one practical, efficient step in the education and training of teachers. To the faculty the practice school furnished an indispensable means of close and careful study and investigation. Unapplied theories—and the world is full of them—are of little use. They float peacefully in the upper air, a sweet consolation to unpractical souls. "Faith without works is dead." We decided that every well worked-out theory which met with general approval must have its final test in the schoolroom. In discussion each teacher's opinion had the corrective check and criticism of every other teacher. No plan or theory entered the practice school in slipshod fashion. The whole faculty watched with critical eyes every new movement, and fresh discussions followed. In this way the faculty concentrated all their efforts upon the care, treatment, training, and teaching of children.

Most members of the professional training class had had during twelve, sixteen, or more years little or no practical use for the knowledge they had acquired. Knowledge to them had meant passing examinations—gaining per cents and promotions. The stimulus of definite purpose, a feeling of the intrinsic function of knowledge, rarely had been theirs. Moreover, a large majority of the students were soon convinced by experience that their stock of knowledge was exceedingly scant for use in teaching, and that their skill also was far below the demands of their pupils. In the practice room they were brought face to face with the problems of teaching. Learning now had for them a very practical use. A hunger for righteousness was created, and this became the special teacher's opportunity. The students, under the pressure of a genuine demand, began to study as never before.

It is needless to say that the more a student knows and the stronger his power to study the better he is prepared to learn the art of teaching. We met, however, in a prescribed one year's course, not a theory, but a condition. The best way to meet that limitation was to set the students to work in the practice school, under the most favorable circumstances.

The practice school has one very important function. It is, if efficient, an influential object lesson for the teachers of the city and the county, and for the parents and the public in general. It proves that there is a science of education and an art of teaching, and that that science and that art mean everlasting progress, mean economy of personal energy; it proves that knowledge and skill are means for the development of character. Under present circumstances it is not possible for other schools to do the work of a properly managed practice school. The practice school is the real center and core of a normal school. It requires the most careful attention and study on the part of the entire faculty. I maintain that our practice school was a far better school for children than schools in general. The preeminent advantage of a good practice school is the individual attention and teaching made possible for all pupils.

On January 1, 1883, the practice school consisted of two rooms and one regular teacher. One room was managed and taught in turn by the special teachers. There was no appropriation for this department. Later, District No. 10 made the practice school one of the regular schools and paid the county $1.25 per month for each pupil on the roll of average attendance. The income from this was not enough to support an efficient school.

We found that the position of practice (critic) teacher is in many ways more difficult to fill than that of special teacher or even that of department head. The practice teacher must teach and criticise as the students practice month by month in her room; she must see that the practice teaching is a genuine reenforcement of her own work—that the largest amount of good is done. The subject-matter pre-

pared by the department heads must be adapted by the special teachers month by month to the actual needs of her pupils. She prepares the monthly programme for printing, and examines with great care the teaching plans presented by the training classes. It is no disparagement to say that many of our practice teachers were not equal to this exacting task. For a long time the limit of the salary of the practice teacher was $40 per month.

I have described the practice school for the purpose of explaining the work of the faculty and of the professional training class as well. The entire work of the school was concentrated in practice teaching. The study, experiments, investigations, the training in expression under all its modes, were direct preparations for teaching. The needs of the pupils in the practice school were the guides and incentives to all-around preparation. The critic teachers, as heads of grades, had immediate charge of the practice classes and, at the same time, of the classes of pupil teachers as they came monthly, class by class, under their charge.

The heads of departments and the special teachers studied the needs of the grades and made out the courses of study in their respective subjects. They consulted with the critic teachers as to the kind and the arrangement of subject-matter and the details of exercises in expression. They gave lessons in the practice school, in order to keep close to the central problem. Every lesson to the normal classes was preparation for the practice work. Each and every member of the faculty taught the psychology, pedagogics, and methodology of his subject or subjects. The function of the department of psychology, empirical and physiological, was to criticise, unite, and correlate all the work of the school.

The members of the professional training class were required each month to furnish teaching plans. These plans involved the subject-matter to be used in teaching, its arrangement and adaptation to the respective groups, with suggestions of methods and devices. Illustrations were presented in the plans by the different art modes of expression. The plans were thoroughly examined by the faculty, and either "approved" or "disapproved," the former meaning that the plan might be applied by the author, the latter that it must be rewritten.

The practice school was divided into forty or more groups or small classes, so that as many teachers could teach during one period. The afternoon session was usually devoted to practice. In three periods 120 members of the training class could give lessons. The entire faculty watched with care, each in an assigned station, the practice work, making notes for personal and general criticism.

The normal classes moved up or down each month, to give each class an opportunity to teach successively for one month in all the grades. The basis of judgment as to progress, promotion, and graduation of students was the character of their work, culminating in their ability to control and teach pupils in the practice school.

Pupils in the practice school were promoted from group to group and from grade to grade whenever in the judgment of their teachers they could do better work, and therefore more good in the next group or grade. This plan required continued watchfulness, a deep insight into character, and a very careful exercise of the power to judge correctly and justly. By this plan the student or pupil was made to feel that his future was in his own hands, that he must "work out his own salvation." Quality of work, mental, moral, and physical, was the criterion.

DISCIPLINE.

From the inception of the work, we were aware that there were very grave difficulties before us. Corporal punishing, fear of which was for ages the stimulus to study, had been generally abolished. The substitute for it has been and is mainly a system of per cents, credits, and promotions, based on the lust for

rewards, the system of marks of quantities of knowledge supposed, and only supposed, to have been acquired. This pernicious scheme of bribery is in reality the systematic cultivation of selfishness, the controlling and root vice of humanity. Its use, in effect, emphatically denies that pupils have any substantial enjoyment in the acquisition of knowledge and in the exercise of skill in expression. Bribery is the line of least resistance for the teacher in keeping the body under constant repression and in stimulating the mind to startling vagaries—startling if they were understood. The stimulus of credits keeps the boy in his seat; per cents induce him to memorize words.

We abolished the whole system of rewards. This reform was a radical one in every respect. Children must have something to work for, else there is no work. A child fed on per cents often thinks of little else in school, and cares for nothing more so far as education is concerned. It is true that per cents do not drag many pupils down, for an aim is as necessary for the child as for the adult. "Ideals determine all efforts of the will" is an axiom. The problem was to find an end, an aim, which would be a high, strong, ethical stimulus to child action, an aim definite in the pupil's mind, an aim that would control his will and inspire his best efforts.

Character, of course, is that end; but "character" is a vague word, unless translated into concrete terms of action. Such terms are found in the true meaning of citizenship; and the qualities and duties of citizenship are interpreted by the needs of community life. Very slowly our investigation led to the truth that must control the future education: "The ideal school is the ideal community." Working under the ideal of citizenship, we found that the feeling of responsibility, the dignity of belonging to a community, the desire to be personally recognized as of some use, and even of importance, were profound and controlling ethical stimuli for all grades of children, from the kindergarten to the higher schools—stimuli that increase in power as duties come, as insight is gained, as right motives are developed. Arbitrary government grew slowly into self-government, the order of assembled souls, the order of duty, of obligation, of free will. Work, study, exercise, play, came into each day as necessities of life, as daily bread.

The reform was accomplished very slowly; indeed, its present status may justly be called only a good beginning. But enough has been done to prove that the ideal is right, though the way of attainment is long and arduous. The history of the school, if written, would be an account of the disruption of the ideal that the acquisition of knowledge is an end in itself, and of the practical beginnings of the new ideal of education—citizenship, community life, or complete living.

Knowledge is to the mind what blood, breath, and food are to the body; without knowledge nothing can be done. But there is an immeasurable difference between knowledge as an end and knowledge as a means. Citizenship demands fullness and richness of knowledge, but it also determines the kind and the nature of the truth to be applied through self-expression or skill. The value of knowledge can be apprehended only through its immediate use, and its appreciation is the highest stimulus to action.

It is not easy to change the ideals of pupils whose minds have been soaked in per cents, before whose eyes glitters the bauble of reward, and whose school habits are rooted in competition. Very much more difficult is the task of proving to teachers that knowledge, as an end in itself, is a fetich, on a par with the mysteries and tricks of the medicine man. The ideal of community life, full and complete as it may be, is a vague thing to teachers whose lives consist in preparing for examinations. But the supreme task is to convince parents and the people that the old plan is utterly wrong. Parents in general measure the school progress of their children by per cents on monthly report cards, by text-books finished, examinations passed, and promotions gained. Rooted and grounded in the

minds of the multitude is the idea that knowledge is the one standard of the school, and that the quantity of learning may be accordingly measured in figures. A delegation of mothers waited on me in the spring of 1893 with an urgent plea for the retention of the monthly report card. The figures of the teachers were to them the only indication of the value of the school. Their ideal consisted of certain quantities of knowledge learned within a certain time, coupled with a "behavior" equal to economical efforts in word memorizing. This ideal was the immediate cause of much bitter opposition to the work of the school, opposition which sprang from very honest opinions drawn from tradition. Opposition was expected, and it was met in the only effective way. The true test of the school is to be found in the development of character. If pupils grow strong and skillful in body; if they become helpful in habit, and thoughtful in their help; if they grow in trustworthiness, in refinement of taste, in moral and mental power, then the school is good. If otherwise, it is worse than useless. When parents found what the school really meant, their opposition changed to enthusiastic support.

THE KINDERGARTEN.

The nearest exposition of the new ideal which we held was the kindergarten. Froebel put it into active practice with little folks, the ideal of social life.

Before 1883, Cook County Normal School had had a kindergarten for a few months. The Chicago Froebel Association supported our second kindergarten by paying the salary of Mrs. Alice H. Putnam, the pioneer of Froebel's ideas in the Northwest. From 1883 a kindergarten has been continuously maintained as an essential factor in the school. It became a free kindergarten when the school was transferred to the city.

Froebel was the pioneer of the new education, the education of complete living. Far above his methods, gifts, mother play, and the precious details of his epoch-making work, stands preeminent his ideal of life. He fully recognized the child as a social being. He believed that the action and reaction of child upon child, of the individual upon the mass, and of the mass upon the individual, were the keynotes to human growth. He saw clearly that opportunities for doing good were the prime necessities for the formation of right habits. In his comparatively short kindergarten activity, though opposed on all sides, he gave to the world one lesson, a lesson of incalculable value, the right treatment of little children.

However, his principles reach upward and onward into all education. To us the kindergarten has been the inspiration of all our efforts. Here we learned that the teacher is an organizer of community life, and a creator of correct public opinion. Here very often we saw a little one, controlled utterly by selfish motives, changed through the influence of public opinion into a model citizen, ready to do his part for his associates. Every member of the faculty, especially the critic teachers, over and over again testified that pupils from the kindergarten might be traced through all the upper grades by their self-control, their desire to be helpful, by their ready skill, spontaneity of action, and power to study. The ideal of Froebel became the ideal of the school.

MANUAL TRAINING.

Handwork, which is now fully accepted in Chicago and elsewhere as an important means of education, had had, in 1883, a feeble beginning. Three or four technical schools in America had introduced it as a means of trade learning; there were high schools that had established manual-training departments, and two private schools had begun sloyd as a means of education; but in the public elementary schools there was scarcely a trace. Thoughtful people who had studied the kindergarten were beginning to have a suspicion that the desire of children to construct and create springs from the deepest and strongest instinct.

Without "chart or compass" we established a manual-training department in connection with the practice school. Charles H. Ham and Col. Augustus Jacobson, through whose efforts and the financial assistance of the Commercial Club the Chicago Manual Training School had been established, were no less zealous in assisting the Cook County Normal School to initiate a course in handwork. In September, 1883, a few rough carpenter's benches were put into a basement room, and tools bought. Dr. George W. Fitz, now professor in Harvard University, took charge of the department. It soon became an organic part of the school work, and as such has continued ever since. It has grown with the school, ever becoming more important, though always crippled for want of money and room.

My first experience of genuine spontaneous attention was the sight of the first class at work with saw and plane. Boys and girls have worked together from first to last, and it would be difficult to say which have done the best work. Our experience in manual training has always been delightful and instructive. The pupils, too, with scarcely an exception, have greatly enjoyed their handwork. When we put the little children from the first grade into the sloyd, they seemed to find a new richness and beauty in their lives; and it was by no means a fleeting pleasure aroused by a novelty, for during their eight years of handwork their pleasure constantly increased. In sixteen years, with continued use of tools, there never has been an accident worthy of the name.

At first we were at our wits' end to find something for the children to do, things for them to make; but this state of affairs did not continue long. Nature study and history soon suggested innumerable articles for use. The demand for apparatus for the study of physics, chemistry, biology, geography, horticulture, and arithmetic gradually filled the sloyd shop, and then the laboratories and class rooms, with articles immediately useful in study and experiment. Manual training became interwoven with all subjects of study. It was the custom of the children to make useful articles for Christmas presents, usually for their parents. It was a delight to observe the intense interest of the workers; how cleanly, neat, and exact they were; how persistently, in and out of school hours, they stuck to their self-imposed tasks; and how, when the walls of Assembly Hall were lined with the beautiful products of their brains and hands, they proudly presented their gifts to their parents and friends.

Every graduate of the grammar school was able to do good cabinetwork. This, however, was a slight indication of what handwork had done for them: muscles developed and coordinated; nerves stronger and steadier; minds disciplined and hearts made happy through the feeling of usefulness. It is notable that the foremost workers in sloyd were foremost in all other school work. We found that the shop was an excellent sanitarium for weak nerves and other defects.

NATURE STUDY.

It was our good fortune to take the initial steps in subjects that have since become of general application. The great book of nature, God's infinite volume of everlasting, inexhaustible truth, had had scarcely a place in the courses of study in American schools. True, science had entered some schoolrooms through the usual text-book methods of learning facts, or supposed facts. Here and there was a touch of laboratory work, which was, however, treated as something far from the organic work of the schoolroom. Scientists were pouring out stores of new-found knowledge; but the introduction of science brought additional burdens, instead of blessings, to teachers who were preparing their pupils for examinations to test their knowledge.

Nature must come in as mind nutrition, the means of soul action. The general theory seemed plain enough. Food, clothing, shelter, comforts, luxuries, means of transportation, the means of sense and æsthetic enjoyment, come from nature.

The great, throbbing world of man is full of nature's products. The universe is God's manifestation of himself to his children. Creation is going on everywhere, in earth, air, and water. Which is better, a job-made text-book, or God's writing on and in all that is?

The question was: "How may nature be adapted to growing minds, to hearts that have loved and lived in nature until, indeed, they entered school?" We must confess to experiments, failures, and almost despair in attempting to adapt to human needs that which seemed so grand and beautiful. Everywhere in the initial experiments was the blindness of the knowledge motive. "Things must be learned thoroughly;" and a natural object was taken, examined, dissected, painted, drawn—exhausted, and the interest of the children exhausted at the same time. Another way must be found. Prof. H. H. Straight, a pupil of the great scientist and educator, Agassiz, entered upon the work in 1883 with boundless enthusiasm, which all too soon burned out his valuable life. He was a man of large vision, a prophet in very truth. It was found that mere laboratory work was not close enough to the children; nature refuses to be viewed in bits and rags. A leaf or a twig would not do; the child must have the whole tree, with the land around, or still better the forest. Field excursions with their wealth of observation were early introduced. Woods, swamps, and the lake shore were investigated with pencil or brush in hand.

Failures in nature study, failures that were, however, prophecies, were the rule, until Wilbur S. Jackman in 1889, undertook to grapple with the problem. The idea of thorough, exhaustive work was abandoned. The phenomena of the "rolling year" were taken as the general guides; the child was brought into loving contact with nature; the subjects were adapted to different stages of child growth; art and nature were correlated.

We have taken a step, and only a step, in the inexhaustible book.

GEOGRAPHY.

Geography has been and is for the most part the memorizing of a conglomeration of unrelated statements. Out of mists and semichaos Ritter and Guyot have brought the knowledge of the earth. Geographers and geologists now living have taken an immense step in advance. It is now possible to arrange the subject in pedagogical order for adaptation, by teachers, to grades and to individual conditions. This task seems stupendous when we take into consideration the vast extent of knowledge from which the intrinsic may be selected. Physiography deals with the forms of the earth's surface, the structure of man's home; geology, with the history of that surface; meteorology, with the climatical environment of man; political geography enters directly into the study of man in his present conditions of social life, commerce, arts, progress, education.

There are in reality but two all-embracing subjects of study, nature and man. Geography unites these two subjects. One subject explains the other; without nature man is nothing; without man nature is useless. Physiography, the intrinsic portion of geography, is new to the world and very new to common education.

Images of the earth's surface are indispensable to a knowledge of all the closely correlated subjects, indeed to all subjects of study. This necessary link was early an exceedingly interesting subject of investigation. We were driven to the field for answers to our questions. No text-book could take the place of the actual objects. We found marks of creation everywhere—glaciers had done their wonderful work, rivers were slowly sculpturing the earth's surface. Scientists in universities had found treasures in field work. Why should children wait for the last steps in their education before coming into contact with the richness and beauty of God's open book?

There is no better sign of the weakness of education than unjust and unwise discrimination between a text crammed with condensed statements and the original sources of truth that everywhere surround us in infinite abundance. There is only one explanation of the comparatively fruitless course, and that is: Knowledge as an end demands facts or statements condensed and arranged in logical order, which, in their adaptation to the needs of growth, are in the highest degree illogical and unpedagogical.

This explanation is made to show how gigantic problems arose at every step and on every side. To follow the quantity plan of learning would have been very simple and easy; the way was well known and well worn. The majority of the people were satisfied with the signs of knowledge acquired; the high schools measured results by the number of facts acquired. But the fact remained that there is an immeasurable distance between knowledge as such and character. The right knowledge at the right stage of development is nutrition; when carried into action it is self-expression, the manifestation of character. It is the question of daily bread for daily needs, infinite in possibilities.

There is the food—inexhaustible; here the child, his soul crying out for nourishment. Where is the teacher?

MAN.

There are, as I have already said, but two subjects of instruction—nature and man. These two subjects are a perfect unit in origin and purpose. History is an imperfect record of man's life, filled with facts, prejudice, fancy, and falsehood. Man, as a subject, is larger than history, comprehending, as he does, anthropology, ethnology, archæology, philology, and a long series of sciences united in philosophy.

History, properly taught, may assist in the study of man; but man is the central subject of a child's observation from the first breath to the last. He is full of experiences of life when he enters the schoolroom. He commands the teacher to go into higher experiences and deeper inferences. This means a never-ending study of man and his works in our great city. Manufactures without end, covering an immense range of human industries; business, commerce, social life, crowd thick and fast upon us. Here again arises the question: "Shall the child get his knowledge of man from meager statements in condensed pages, or shall he come into genuine physical contact with the great arteries of trade, with the life all around of building and making—the paving of streets, the building of bridges, and all the vast and varied activities of a great city?"

Our experiments prove beyond question that all children have a deep and abiding interest in these things. Two hours in a great rolling mill means a genuine and profitable study of history. Such a study prepares children for the story of the great industrial developments. They are ready to appreciate great inventions and to reverence the inventors. They observe men at work; they feel the value of work, and honor labor. The citizen should know something of the world in which he lives, and this knowledge comes best from actual contact. Again, there is the thrilling history that the newspaper brings us. The geography of Cuba, of the Philippines, or the Transvaal, makes contemporary history interesting and profitable. Education should prepare one to study, to understand, and to appreciate the life on our globe that now is. Manila leads back to the great Armada; the present state of man is the outcome of the past. The railroad bridge near the schoolhouse is a very complicated structure, the evolution of centuries of bridge building. Observation of that bridge leads to the question of how primitive man made bridges. Without discussing the vexed question of racial culture, experience shows that the delight children take in the life of primitive man, in early

homes, in houses, weapons, utensils, art, is universal. Thus evolution means to them the evolution of the tools, homes, the furnishings of man.

Myth is the beginning of history, and every child goes through a stage of myth life. Spiritual life in history has its roots in myth, and the same is true of the child. Literature is the beacon light of history. Miss Rice, head of the department of history and literature, made out course after course and programme after programme, all of them tentative but profitable.

That man's life may enter and influence the child's life as daily bread is a possibility which opens great vistas of educational progress, fraught with deep significance to humanity.

CONCENTRATION AND CORRELATION.

A body of teachers working together honestly and earnestly for the good of children will be sure to find something better at every step. The best in educational principles that we as a faculty have found may be summed up under concentration and correlation.

Pedagogical concentration is the bringing to bear of the will, the reason, and of all that makes up personal thought and energy, upon character building or citizenship, as the end and aim of education. Concentration is reinforced a thousandfold when an entire faculty unites for one purpose.

Citizenship, or its correlative, community life, demands that knowledge and that skill which make the social life of each as full and as rich as possible; it demands that work and play which the little community needs day by day. Nothing can be done without knowledge, and the problem is: "What knowledge does the class or the school need for the best life?"

Selection on this basis from the vast stores of knowledge is of paramount importance. The selection of subjects of study is not hedged in by the formal classifications of knowledge; indeed, correlation means the breaking down of the barriers of classification. To illustrate: When a tree is a subject of study it should be observed in its entire environment of earth, air, and water. Thus geography, meteorology, and mineralogy converge in the study of one object. Perhaps the best way to illustrate correlation is by contrast. Knowledge, as an end, seems to make the isolation of subjects a necessity for the acquisition of certain quantities of knowledge in a given time. Therefore, in departmental teaching, subjects as closely related as geography and history, or botany and mineralogy, very often have no relation whatever in the minds of students. The tendency in knowledge getting has been classification into subdivisions, the splitting up of topics or subjects. It is a simple psychological fact—indeed, it is common sense—that the strength of a thought lies in its relations. The unfortunate struggle to pass examinations has suggested the device of compacting and isolating subjects.

One of the first mental processes that attracted the attention of the faculty was that of reading. The line of discussion was somewhat as follows: "Reading is thinking, imaging. It should therefore always have a content of educative thought. The observation and study of man and nature furnish the mind with growing images. Reading expands the images and brings them together in a unity. Is it possible to make reading educative at every step? or, in other words, can reading be made from first to last a potent means of synthesis and reflection?" Then arose the crucial question: "Is it possible to teach children the art of reading and at the same time hold them to educative thinking?" We were teaching nature, geography, history, literature—subjects full of interest—to which reading could be correlated. The theory stood the test, and one step in correlation was taken. The time given to learning to read became time given to study.

Spelling, the incubus and bugbear of school, came in for consideration. Is it possible to learn to spell and at the same time express educative thought by writing? Articulation, enunciation, pronunciation, and idioms are acquired by the expression of thought. Why not the correct form of written words by an analogous process? From first to last the nutritive subjects of man and nature demand an immense amount of expression by means of the pen. Writing has the tendency to unite images, to quicken thought power, and to strengthen memory. All writing should be correct in verbal forms. Is it not possible to learn to spell while expressing thought in writing? If this question can be answered in the affirmative, how much valuable time may be saved!

Long practice has shown that these questions may be answered in the affirmative. There are now and then failures in teaching children to spell on the plan of correlation, but such failures may be charged in general to defective teaching or to neglect to do the right thing at the right time.

The doctrine of Delsarte carried us another long step in correlation. Mrs. Parker taught that kind of elocution which trains the body to be immediately responsive to the soul. Oral reading is the direct motor discharge of thought and action, enhanced by the action of the whole body. Thus speech, including oral reading, and thought may be correlated. This seems simple, yet we all are painfully aware that elocution has been to many the training of the voice, wholly isolated from the images in consciousness.

If childlike spontaneity may be continued and maintained in speech, why not in writing, modeling, painting, and drawing? Art, so called, has entered the American schools under the plea of industrial necessity. It came with the stiffest formalism behind it, was isolated from all earthly things, and its use neither the teacher nor the pupil could understand. It consisted in copying copies or in drawing meaningless models. It is absurd to call this art. It never made an artist or cultivated a love of art.

Expression has three functions, physical, mental, and moral. It trains the body in skill, reacts on and strengthens consciousness, and, above all, makes expression an immediate means of genuine thought manifestation. The higher the purpose the greater the stimulus to the exercise of the body and to the enhancement of mental images. This is true only when soul, mind, and body act as a unity, the end controlling action; motive, image, and self-expression following each the other in immediate succession.

The above statement was the outcome of many long discussions, which were followed by experiments and trials. When we were teaching nature study, geography, and history, speech and writing were commonly used modes of expression. To these were added making, modeling, painting, and drawing. Each mode of expression had its special relative function. The question that came up again and again was: "Is it possible for pupils to acquire adequate technique in art through the exercise of skill under the immediate impulses of educative thought?" The answer came slowly all along the line: "Thought and expression need not be divorced. Expression will grow with thought, and thought with expression. Under good teaching, it may be made better and better at every step." The correlation of thought with all the modes of expression is a great pedagogical truth. We scarcely "touched the hem of the garment," but the healing came.

Every teacher holding an ideal inexhaustible in suggestion of better things became a discoverer. The best that went into the school almost invariably came from a teacher who had studied the needs of pupils and sought to supply them. In 1884 Prof. H. H. Straight introduced an idea that led to much thought and practice. He was of the opinion that arithmetic should be used in all studies, and, in the use, be mastered. The reasons for this may be stated as follows:

1. The one function of arithmetic is measuring quantities.

2. In real life—in home, industry, commerce—nothing can be done well without the use of number or measuring. Number is an indispensable factor in all work; in fact, without number progress would be impossible. In school no subject can be readily understood without the continuous use of number. Physics, chemistry, geography, and even history are full of questions in number. In every lesson there are problems that involve the exact limitations of quantity. All constructive activities must include number, for accuracy, exactness, proportion, and symmetry demand measuring.

The problem may be stated in this way: Which is better (1) to learn number as a subject by itself in order to prepare for its practical application, or (2) to learn number by and in its application?

The handling of objects in teaching is now considered necessary. So blocks, sticks, and all kinds of counters are used in the best schools. The use, however, of these counters and quantities is of no worth to the pupils beyond the mere measuring. The pupils do not, through the use of magnitudes, see or feel any intrinsic merit in the exercise. But the moment they measure for some higher aim, their interest is immensely increased, and the facts of number become a part of themselves. It needs little explanation to prove that, when a human being outside of school is working toward some definite end, he uses all the means within his reach. Why not give our children the same opportunity?

We took a good step toward correlating arithmetic with all other subjects, but only a step; very much remains yet to be done to prove or disprove the theory. Habits of teaching under the "knowledge aim" have powerful binding force. "So much in so much time" means, "I must exclude all except the definite facts to be learned." The character aim demands that everything shall be brought in which will concentrate and expand ideas and develop right habits. Personally I am entirely convinced of the truth of the theory.

The more we studied concentration the more important the doctrine became to us. Vistas to be explored, new details, fresh correlations, appeared on all sides. We felt that we had entered upon a work infinite in possibilities. The most important gain is in the immense economy of personal energy. This may be understood by the aid of the following statements:

1. The art of reading is mastered by using written and printed words from first to last as direct means of educative thinking.

2. Arithmetic is learned by the measurements actually needed in the study of subjects, as, for example, in manual training.

3. Skill in all modes of expression is developed by continual practical exercise in the immediate manifestation of thought. This applies to speech, oral reading, writing, manual training, and music; for—

4. The correlation of the modes of expression by which skill in one mode is obtained enhances the educative value of skill in all the other modes.

5. All the substantial subjects have an intrinsic correlation. History makes an imperative demand for geography. Geography is useless without history. Geology is the history of geography. Mineralogy is the study of the changes through which the material passes, and which result is geography. Biology is the study of life made possible by inorganic matter. Sociology is the study of the environment and home of man. The child begins the study of all these subjects before he enters school. Under the principle of correlation this study is continued. In mind growth all the energies of the pupil are engaged upon the direct study of the substantial subjects. In laboratories, in field excursions, in books, museums, and industries, everywhere, reading enters as a reenforcement of thought power, as a means of concentrating and expanding images. Arithmetic is an integral factor in all investigations, experiments, and study. The modes of expression are constantly used for their reactive influence upon consciousness, in relating and

strengthening images. In moral growth, under the ideal of community life, self-expression is made ethical action.

All this was by no means accomplished in practice, but enough was done to show plainly what may be done in the future by better teaching.

LANGUAGE.

The pedagogics of language are by no means settled. As a faculty, we grappled with the various problems that language teaching involves. It is needless to describe technical grammar, or the thin dilution of grammar called language teaching. What language pedagogics was and is, and its results, everyone who has been a pupil in our schools well knows.

What the blood is to the body language is to social life. Language, both oral and written, should be correct, strong, terse, clear, and graceful. It should be a great power in the one who uses it and of great influence for good to those who hear or read it. How may speech and writing be developed in the best possible way?

The study of the substantial subjects, man and nature, demands at every step a fullness of both speech and writing. The recitation is a means by which teacher and pupil help each other to think earnestly, honestly, and persistently. Each pupil is called upon, from first to last, to use his best efforts in speech. His language must be his own, and must be spontaneous; that is, must spring immediately from educative thought.

How may language be developed along the line of least resistance? Is it by studying technical grammar, by writing and speaking countless correct but unrelated sentences, or by taking it warm from the child's soul and correcting it, shaping it into what it should be? Is it not possible, under good teaching, to make language the warp of all exercises, both oral and written? If pupils repeat verbatim what they have learned; if there is no investigation, experiment, original research; if the controlling motive is not to help others, then the plan of developing language under the impulse of intrinsic thought must fall to the ground.

Our faculty tried the plan suggested. Both speech and written language were used as we used making, modeling, painting, and drawing. Whenever a suggestion, definition, rule, or any detail of technical grammar was needed to enhance the force and beauty of the expressed thought, it was given. Perhaps I am saying this too positively. It is exceedingly difficult to carry the rule just named into continual execution. I am sure, however, that the growth and development of language with our pupils was far better than under the technical grammar plan. We as teachers have been the victims of a very imperfect plan of language teaching, as a consequence of which our own knowledge of the laws of language is not equal to the new and higher demands.

CHILD STUDY.

The teacher has to do with the child and his destiny. This destiny is civilization and all that this word implies. The march of civilization means better homes, better society, better institutions, and a higher spiritual life. The child is God's contribution to civilization.

Self-realization consists in improving the condition of mankind through personal effort. True education brings the child into direct contact with the problems of civilization, adapting them gradually to growing power. The teacher presents the conditions, creates the environment best adapted to self-realization. Knowledge of the child's nature, of the laws of his growth, of the necessities of his best living, of the actions that should be aroused and sustained, and of those that should be inhibited, is absolutely necessary to the creation of the pedagogical

environment. The more the teacher knows of children in general and of a child in particular the better he can move his pupils in and toward an ideal. Froebel, Comenius, and Pestalozzi were students of children; hence their epoch-making reforms. All real reforms of education in the past have sprung from child study, and future educational progress will spring from the same source.

Within the past few years there has come to us through laboratory investigations and experiments in physiological psychology a more or less scientific child study. Our faculty was ready to receive the help so freely and so abundantly offered, for this help was in a line with our studies and discussions.

The practice school received quite a number, proportionately, of defectives and dull or backward children. In the absence of all unhealthful competition or rivalry the teachers were able by means of manual and physical training, nature study, a large variety of work and play, and close individual attention, to make the school of great assistance to them. The teachers were glad to have these unfortunates in their class rooms. It is well known that many good suggestions for the improvement of teaching have come from attempts to help defectives. Two deaf mutes, now successful in professional life, graduated from our practice school.

Child study brought us the truth which we had long suspected, that all really dull and backward children are so from some defect of body or brain; in a word, from some physical abnormality. Dull children through the ages have been scolded, flogged, nagged, driven to despair by both parents and teachers. Dullness was attributed to inner depravity. This one revelation of child study is enough to make it forever glorious. Instead of flogging there comes a sweet, strong sympathy for the victims of inherited or acquired weakness. The school, we found, can do a great deal for most cases. The right work and play, physical exercise, beautiful music, with great patience, will do much. Our record with defectives, if written, would be very instructive.

The discovery of "nascent periods" is of untold value to teachers. The term simply defined means that the kind and direction of a child's activities, mental and physical, are determined stage by stage by the growth and development of the body and the brain. Creeping, walking, talking are activities aroused and sustained by the different stages of physical development. The inferences are of exceeding value in teaching. The time for the teaching of reading, writing, arithmetic, etc., is determined by the physical and mental power which the child is able to bring to bear upon these activities. If the child is forced, the result is weakness. If the time is put off too long, there is a loss of power.

By understanding more clearly the interdependence of body and mind we were led to the conclusion that physical training should have a very prominent place in school; that play is the very best of physical training, and more, that play is the very best preparation for study. Under the splendid leadership of Carl J. Kroh it was proved that the child most skillful in physical exercise is strongest in all other school work.

Child study brought us much that was rich with suggestion and prescription, but, best of all, it made us more sympathetic, more patient and thoughtful with all our pupils. We studied and watched them and discriminated between real growth and delusive appearances of growth. A great flood of genuine humanity has come into the lives of our children, much of it through child study and through the heart of its great advocate, Dr. G. Stanley Hall.

In 1883 the school was meagerly furnished with apparatus, books, collections, and other illustrative material. There were a few specimens of birds, a fair collection of minerals, and some apparatus for teaching physics. The Eberhartonian Society had collected about 250 books. It is gratifying to report that the school now has an excellent all-around equipment: Thirteen thousand carefully selected

volumes in the library, card catalogued and arranged for use; the largest school collection of pictures in the world, and a very large cyclopedia of newspaper clippings. The picture collection and the newspaper cyclopedia are the work of Mrs. Frances Stuart Parker. Many of the collections, mineralogical and anthropological, also were made by Mrs. Parker.

No other bit of equipment ever came into the school from which so much substantial benefit was derived as from the printing press. The printing began in a small way. There was great need of reading lessons which would directly enhance the value of thought acquired by investigations, experiments, field excursions, and other study. The lessons in the text-book did not enter the child's apperception. After the use for a while of a mimeograph, a hectograph, and other duplicating devices at last a small printing press was purchased, with a font or two of type. Out of this has grown a very fairly equipped printing establishment. The printing of reading lessons was a great success, and the use of the type by no means ended with the new and fresh reading matter.

Under the knowledge ideal it is comparatively easy to make a course of study an orderly and logical arrangement of subjects, assumed to be a necessary form in an ordinary curriculum. Under the ideal described above the making of a course of study is an evolution, a constant and careful revision, made possible and necessary by the insight of the teacher and by a consensus of opinion on the part of the faculty. Details must be continually changed or eliminated and new elements and factors introduced. The printing office has been of very great assistance in the evolution of courses of study.

In 1895 the Cook County Normal School published the first course of study on the basis of correlation and under the ideal of community life. This course of study was to us a basis, or, rather, a starting point. Each department once in three weeks made outlines for the practice-school training class. These outlines contained subject-matter, with suggestions about illustrative material for adaptation, for methods, and devices, and a complete list of references for study. The critic teachers prepared outlines for one month's work, using the outlines of the special teachers as a general basis for class adaptation. These outlines contained criticisms, suggestions, directions, and references. This valuable printed matter kept the whole faculty informed as to the work of each of its members, throwing it open to criticism and discussion. It was also the best kind of periodical text-book for the training classes, giving them full directions for study, research, and investigation in preparing their practice work. Besides this, the syllabi for the faculty meetings were presented and given to the training classes, this tending to unite both students and teachers in one purpose—the study of education.

Two improvements of very great value were made last spring by the board of education. One was the establishment of a kindergarten department, by which Froebel's methods may better permeate the whole school. The second innovation eclipses all others. It is the introduction of a two-year course in place of the one-year course. This means that in the future the city and the county will receive from the school better teachers than they ever had before. One year is altogether too short a time in which to train young men and women in the art of all arts. The board of education in making this change took a great step in advance.

The plan of admitting students is by no means satisfactory. Ninety per cent—the average high-school standing required for admission—means very little, and an examination much less. Neither method insures such students as should be trained for the high office of teacher. The principal and the faculty of a high school, after four years' observation of their students, ought to be able to decide who would make good teachers after two years of normal training.

In closing this report I wish to thank the many friends who have stood by the school in its struggles for progress. The list of strong friends and earnest

defenders is a long and precious one, consisting of superintendents and members of school boards, both county and city, and of parents and citizens. I may be pardoned if I mention one whose name may be placed at the head of the list—Dr. Alfred H. Champlin, of Englewood. Above all, I desire to express my heartfelt appreciation of the earnest, self-sacrificing band of teachers who believed in the ideal of ideals and to it devoted the best in their lives.

No other step in my life has given me greater pain than to leave the school I love, to which I have devoted myself heart and soul for sixteen years. Nothing but a profound belief that I can do greater good elsewhere induced me to break the bonds that bind me to the children I love and to the graduates who, I sincerely pray, will bravely fight the battles for God's little ones.

What has been gained? Very much. One step has been taken in changing from the old, mediæval ideals—the ideals of monarchs and aristocrats—to the ideal of self-government, citizenship, a higher community life. Not with the guns of Dewey and Sampson, not with armies and navies will the inner, the decisive battles of freedom be fought. Our city, our country depends for its future on the teacher and the school, the school that insures the future by training the future citizen.

ADDRESSES DELIVERED AT THE SERVICES HELD IN MEMORY OF COLONEL PARKER AT THE UNIVERSITY OF CHICAGO, MARCH 6, 1902.[a]

BY PRESIDENT WILLIAM R. HARPER.

Many lives contain tragedies greater and sadder than the tragedy which marks the end; but in the life that has just closed, so far as I know it, the greatest tragedy has been that in which it ended.

The life of our friend was never a smooth one, as lives go. With his temperament it could not have been expected to be smooth; but, on the other hand, it was not an unhappy life, nor was it one devoid of meaning to himself and to his friends. Few men, probably, have found greater satisfaction in life; for it was his determined purpose to make of it as much as possible—a purpose the execution of which assisted many and injured none.

The Colonel's life was a varied one. As soldier, student, teacher, as leader, administrator, and thinker, he filled at various times positions of high responsibility. There was a certain brusqueness in his voice and manner which some, perhaps, did not understand and with which they were not in sympathy; but even those who were in the outer circle of his acquaintanceship knew that this was only an external physical expression which did not represent his heart.

To me he seems to have been rather a prophet than a philosopher. The courage and the strength which he expended in fighting for the highest ideals of educational work, against opposition and in the midst of difficulties, marked the prophetic character. His singleness of purpose and his devotion to the cause he held so dear were most striking; but to those who knew him they were only natural. His mind was alert and always vigorous, widely interested and full of vision. His greatest strength lay in the wonderful power given him to sympathize with others; to enter into and to appreciate the experiences of others.

His love for children was extraordinary, and this single factor controlled his thinking and his life. Nor was it love for children in the abstract. The satisfaction with which he studied the growth and development of a particular child, the interest manifested in each individual, were the truest expression of the joy and

[a] These addresses are reprinted from The Elementary School Teacher and Course of Study (University of Chicago Press), June, 1902.

gladness which seemed to fill his soul in its close communion with child life. These, at all events, were some of the strong peculiarities of this, our friend, who has been taken from us.

I can see him now as he sits, with his hands crossed, listening with supreme delight to the expressions of child thought, one following the other, each illustrating some phase of the child nature. I can hear him now, speaking strongly and enthusiastically of the possibilities of child work; of the greatness and the nobility of the profession of child culture. And I remember how, during the last months, his whole soul seemed to be centered on the thought and the conception of the buildings for the School of Education; how he waited, so long and so patiently, always ready to sacrifice the present for the sake of a higher ideal to be realized in the future.

He was a man of superb idealism, unmindful of the present, provided that there seemed to be promise of a greater future; never moved by motives of expediency, but holding out before himself, as well as those associated with him, a high and splendid ideal toward the realization of which he made the most earnest effort; and in this is found the tragedy of the situation.

It was the realization of his most extravagant hopes when a broad-minded woman came to his assistance and placed within his reach the means with which to carry out his long-cherished plans. How unexpected; how generous; what possibilities it furnished! And then came the union with the university, which, to him, signified broader lines and still greater possibilities. The building plans revised and enlarged; his interest in it all and his devotion to it all through these months; the tender and sympathetic regard of the old trustees, every care being taken to secure for him and his work the most favorable environment, and, at the same time, his peculiar and deep appreciation of the favor and courtesy thus extended to him. And now he is gone, while the work is hardly begun. Three more years, and he could have died in peace, with all his efforts rewarded, his ideas formulated, himself seeing the walls of the magnificent group of buildings which are to be the outgrowth of his thinking and his work. Could anything be more sad? And yet he turned the soil for these buildings last June, and he spoke the first words uttered upon the grounds of the great school which through all the years will bear the stamp of his influence. Could we have known that day what was to be, how even more solemn and significant the occasion would have seemed!

BY ALBERT G. LANE.

District Superintendent, Public Schools, Chicago.

Colonel Parker came to the Cook County Normal School at a time when there was a rapid growth in this city and county and when about 300 teachers were needed annually to supply the increased demand and to take the places of those who retired from the service. This demand brought many experienced teachers here who availed themselves of the privilege of attending the normal school and of acquiring a knowledge of the principles and practices of the "new education" as enunciated by Colonel Parker. The high-school graduates who desired to teach in the county were required to take one year of professional training before they could become teachers. From the beginning of his work in this county he strongly molded and influenced the ideas, the motives, plans, and methods of all who came under his instruction. Nearly every graduate of his school commenced teaching with high ideals of the teacher's mission and a quickened power to arouse in children a keen, natural interest in any work which was undertaken. His graduates became observers and students of child nature. They sought to

lead the unfolding powers of childhood into channels of activity that would make them observant of things, their relations, and uses. They gave new life to the child's efforts by opening up various forms of constructive work, by making drawing a delight to children as a language for expressing thought. They made the study of geography full of intense interest by the lessons in science, by visiting and observing the surrounding country, by examining and studying the products of the soil, their growth, and the changes necessary to convert them to man's use.

His graduates learned to make reading a great means of growth and culture, relating it to some subject or object which was of attractive interest, something which the child was anxious to know. Many books furnishing information were brought into the schoolroom, and the children learned to use them. History, no longer memorized by the page, was made a delight to children as they read stories of the children of other lands, their dress, customs, and homes; of men's travels and achievements; of their struggles to build a nation where each citizen should have a chance to develop all that was highest and best in him.

Colonel Parker impressed his graduates with the value of each life as a factor in building up and maintaining the social well-being of any community. The central thought of all his teaching was mutual responsibility and freedom of the individual to come to a knowledge of truth. Truth frees from bondage. His graduates were trained to ally themselves to all public movements for the common good in the places where they taught. The people were brought to feel that they had a part in the life of the school. Old and young were frequently brought together and made conscious of the necessity of unity in all true growth and advancement.

I will not attempt to enumerate all the changes that have grown into our educational work as the result of Colonel Parker's labors during the last seventeen years. During that time about twelve hundred teachers have been graduated, and many others have taken partial courses, have studied his principles of education, and adapted many of his methods. The schools of Chicago and Cook County bear the evidences of more rational developing and inspiring work with the children. Their lives have been made brighter by the transforming influences of wiser, better teaching.

Colonel Parker's work and influence have not been confined to this vicinity. In those great annual institutes which were held, averaging for several years from 500 to 600 teachers, he found opportunities to set forth higher standards of education. His writings on education have been read and studied and their suggestions put into practice. Text-books for children have been modified to meet his thought, and that of others who have stood with him or have followed his educational theories and practice. There is scarcely a State in this Union where he has not lectured and aroused people to consider more carefully and intelligently the marvelous possibilities in the training of children.

During these years he has changed in many respects his methods of work, although holding firmly to fundamental principles. His conception of education is expressed in these words, spoken by him last summer at the meeting of the National Educational Association at Detroit:

> We are marching along the endless pathway of unrealized possibilities of human growth. We believe that all that education has yet done, with its principles and methods, its reformers and its organization, is but a crude step toward that which must be. We believe that the inner development of the human soul in righteousness is the one purpose of education. * * *

BY DR. JOHN DEWEY.[a]

This is neither the time nor the place to attempt a review of the educational philosophy or the educational work of Colonel Parker. But our noble and single-minded friend obeyed above most men the scriptural injunction; he loved and did with his whole mind and his whole soul. Hence it is as impossible to speak of his personality apart from his educational work as it is to speak of his educational work apart from his personality. He was fortunate in the complete identification of his whole being, his whole personality, with the work to which he devoted himself.

Thus there are three things in his educational work which come to me because they are characteristic of his personality, because they belong to the man. Colonel Parker was upon the programme of the educational meeting which was held in the city last week, but was kept away by his sickness. The title of his speech was "Education into citizenship." If there could have been anything more characteristic than this of Colonel Parker's attitude toward education, it was the subtitle, "Relating especially to dependent and defective and backward children." His last address sums up the man, his recognition of the social element in education, of that which makes it a real force in community life, and the outgoing of his heart to all those who, being helpless, needed peculiarly tender care. Much as he did for education in the way of improving and reforming its methods of teaching and its administration, the essence of what he did was greater than any specific contribution; it was to inspire the teacher and the child in the schoolroom with his own affectionate and sympathetic personality. He renewed the old lesson as to the shortcomings of all instruction until it adds devotion and love to intellectuality: "The greatest of these is love." He was accustomed to say that the social spirit of the schoolroom does more for the child than the formal instruction given; that what the children learn from contact with one another and the teacher is more than what they learn from the text-book and the lecture. If this be true, then the atmosphere and spirit of the schoolroom must be that of freedom, of confidence, of mutual interest in a common life of work and play. He was accustomed to say that all the resources of the schoolroom should be centered upon the "bad" child—resources of helpfulness and sympathy. That was most needed in the schoolroom. That which to the pedant and formalist is a barrier was to him an appeal. What he did in breaking down the despotism, formalism, and the rigidity of the old-fashioned school he did, not just because of abstract theory, but because he insisted that the love and faith, which are the tokens of the highest character everywhere, find a peculiarly appropriate place in the contact of the learned and the mature with the little and the feeble.

The second thing that comes to me in the connection of his personality with his educational work is that he believed there is absolutely nothing too good for the children. Many of you, doubtless, have heard him give a talk entitled "Nature and the child," in which he gave a poetic and idealized sketch (which I supposed to be autobiographical, although he did not say so) of a boy on a farm and his contact with nature. On that farm he studied, without being aware of it, mineralogy, geography, geology, botany, and zoology, and came in contact with nature in all her forms. He believed that what he did there himself in that undirected and casual way every child should be allowed to do, should be encouraged to do, through an educational system. Thus he did much for what is termed the enrichment of the elementary-school curriculum; not, again, just as an intellectual matter of putting in this and that study, but because he believed that whatever there is of value in the history of man and in the world of nature is the true birthright of every child born among us. To do anything by any method, by any system of

[a] From stenographic report.

administration which keeps the child from full and complete contact with these things, is a wrong against human nature and against the human spirit.

. The third point in which his educational faith and his personality came together was his faith in the professional training of teachers, and in the science of education. I once heard him say that it was this thing that induced him to come out here. He gave up a position which, judged by a conventional standard, was one of superior dignity and importance. But in the position which he occupied he felt that he was getting away from the children. The more he had to do with such a position, the more also he realized that the future of education depends upon the training of the teacher. His belief in the unrealized possibilities of the art of teaching was sublime. It is an inspiration to all teachers everywhere—just as it has been to those who have come immediately under his personality. Just as he believed that there was nothing in the world of nature or art too good for the child, so he believed that there was nothing in the personality of another, no element of the human spirit, which should not be called forth in the art of educating, of developing the latent possibilities of the human soul. It was that moral goal, that moral ideal, the possibility of a fuller development, which inspired him in the work he did with teachers.

The great lesson that comes home to me from Colonel Parker's life, the great lesson that I feel that I ought to call especially to the attention of the younger people here present, is what it means really to attain success in life. Colonel Parker never temporized, he never used little expediencies or policies. He never got lost in the smaller things of life; he kept his eyes steadily on the great things, and he fought onward with all the vigor of his personality for those things which are enduring, invisible, and worth while. He waged warfare against opposition; the opposition that came from those who could not get beyond the things they could see and touch, and who consequently had attached themselves to the mechanical and formal. The opposition was sometimes active and virulent; more often that of indifference and inertia—harder to face than the active sort. But he never wavered a moment; he never compromised; he never sacrificed the spirit to the letter. As a result, more than the usual measure of success came to him.

Twenty-five years ago, in Quincy, Mass., the work he undertook was an object of derision, as well as of sympathy, all over the country. He was a pioneer, and to many he seemed a faddist, a fanatic. It was only twenty-five years ago, and yet the things for which he then stood are taken to-day almost as a matter of course, without debate, in all the best schools of this country. Afterwards, in Chicago, he waged, against untoward influences, the battle of the professional training of teachers; he fought to keep away every political and personal influence that might in any way lower the standard of the school. Every year he had to wage the battle over again, and every year he simply made his appeal to the people, to the democracy, in which was his trust. His faith in human nature was rewarded. Every year forces rallied about him, and, working with him, won his battles against the combined ranks of political and personal enemies. He gave years of struggle to the elevation of the education of the child and of the teacher; and in his last years, with full poetic justice, with more than the recognition that comes to most pioneers and apostles in this world, his beneficent friend crowned his work with that generous gift which brought within sight—alas, not within grasp—a realization of his lifelong dreams. These things came to him not because he sought them, but because he sought the things which he considered permanently worthy and desirable. And with these other successes came to him the love and loyalty of devoted and attached friends. He was fortunate above most in winning to himself the loyal assistance and unflinching confidence of others.

When a great life has passed away, we get a better perspective of the things that are really worth while; the smaller things, the temporary things, drop back where they belong, and the qualities that ennoble life—faith, courage, devotion to ideals, an end to fight for and to live for—stand out in their supreme significance. Our friend's physical presence has left us, but his spirit remains, reenforced and multiplied. It abides not only in this university community and in this city community, but it lives on in the heart and in the work of every teacher throughout this broad land who has been touched by a truer perception of the high ideal and calling of the teacher.

BY EMIL G. HIRSCH.[a]

* * * We who have crossed the noon line of our life remember well that routine, mechanical reciting, deadening, soulless, devitalized memorizing, ruled in unquestioned regal state in the schoolroom when we were young. A mighty change has been wrought since we were forced to submit to this paralyzing torture of the primer and speller. Then the teacher was regarded as a machine, so constructed as to measure off, in accurately determined quantities, intellectual electuaries which the pupil was to swallow. Education, so called, consisted in transmitting, in well-regulated flow, from a large barrel containing information, to the memory of the child, the daily doses. And the pupil's part in this process was restricted to parroting, with prescribed sing-song, the text-book. History was a jungle of unconnected and bewildering dates and names. Stress was laid on ability to rattle off, at a given signal, forward or backward, as whim pleased, the catalogue of battles or of Presidents. He who could mumble off the names without tripping, and at the highest speed, was crowned with distinction. Arithmetic was a series of tricks, never the application of general and well-comprehended principles to concrete instances. Imitation, not initiative, was the keyword to the educational creed. The eye and the ear were not called into play for the purpose of mastering the inconsistencies and intricacies of English orthography. That the historical development of our language had no place in the scheme goes without saying. But even the natural instruments at the disposal of every child were neglected. Spelling was a drudgery—another tax on the memory. Words jumbled together, for no other reason than that they were of the same number of syllables, were pumped into the mind of the hapless victim of the system. Interest was rigidly banished. Rough and ready utility was invoked to fig leaf the nudity. To-day air, sunshine, life, flood the schoolroom. Pupil and teacher alike have been freed from the house of bondage. Whose is the credit? It is his whose mortal remains will soon be consigned, by loving hands, to the grave. It was not an easy task to arouse men and women to a better understanding of the implications of education. The old way, just because it was rigidly mechanical, was the easiest way. It ran along the line of the least resistance. The daily programme could without much thought and trouble be arranged. The standards of promotion from one grade to another could without difficulty be fixed. Teachers could be held inflexibly to finishing a certain amount of work. They could be rated successful or the reverse without much labor. Why, then, should this convenient scheme be replaced by another? Colonel Parker put the trumpet to his mouth and declared to American educational idol worshippers their transgression. Prophet he, he sounded the alarm in no uncertain notes. Bel and Dagon toppled over. The walls of Jericho crumbled before his blast. Routine had to give room to reason. Reception and transmission of knowledge

[a] Revised from stenographic report.

were relegated to the rear. In their stead America learned to put emphasis on thought, on observation, on objects. Books were made subsidiary. The manual was almost branded an intolerable intruder. The appeal of the teacher went out to the creative energy of the pupil's soul. Learning was discovered to be, in very truth, construction and combination, not repetition and imitation.

And another Moloch to which children had been offered was destroyed. The old routine had invited the spirit of rivalry to an important function. Competition was encouraged and stimulated. School work was twisted into an end lying beyond. Prizes, marks, honors, were deemed incentives and ultimate objective points. Unholy passions were aroused and played upon. Envy, jealousy, opening the door to dishonesty and favoritism, followed in the wake of the competitive zeal. Another Ruskin, our departed friend saw the pernicious influence of the plan. He understood the injustice inseparably connected with its much-lauded philosophy. That it resulted in injustice to the honest pupils he could not conceal from himself. Who won the distinctions? Not the conscientious boy, but he that nature had most lavishly gifted. Medals and the best marks fell to him who, richly remembered at birth, could without pain absorb what fragment of knowledge constituted the test, and easily rattle off or write down the answer to the decisive question. But the painstaking boy of nervous organization, the timid lad, or he of less quick reaction, who had to work hard to master the problem, or, rather, to remember the trick shown to lead to the solution, because of slower temper and of more limited capacity, was not rewarded. Effort counted for nothing. Results only were considered. Colonel Parker could not compromise with such fundamental immorality. Cooperation, not competition; altruism, not selfishness, he held to be the sacramental terms of consecrated pedagogy. Justice he would have reign wherever teachers and pupils met. What to him that the world also follows the haphazard plan of distributing its prizes not in accordance with merit but with results? The school for him had all the more urgently the duty to construe its world on ideal lines. Merit, not result; effort, not attainment, was his polestar.

Again, because he had so high a conception of the function of education, he was among the first to preach in this country a gospel long before heard and accepted in other lands. He insisted that teaching was noble enough, was exhausting and encompassing enough, to be a profession, meant to fill out the life of him who would embrace it. It is not so long ago that teaching was regarded as a sort of stepping-stone to something ulterior and more profitable. The schoolroom was looked upon as a convenient wayside station where one might get off and while away one's time, "hearing lessons," before an express train came along to rush one on to the ultimate destination. Teachers were almost Micawbers, "waiting for something to turn up." In consequence, everybody that was equipped with a moderate amount of information, disjointed and inaccurate though it was, was thought fit to be a teacher. To teaching turned those that had not yet made up their mind what to become, those that had no mind to decide in what field their vocation lay, as well as the thousand and one that had suffered shipwreck on the ocean of life, the sad "misfits" that had been found incompetent in other pursuits. That the teacher's dignity suffered as much as did the school under this hallucination is plain. Acknowledgment of the social service the teacher renders, and adequate compensation therefor, was not meted out to the small, noble fraternity of true and devoted pedagogues that even at that time here and there had made their work tell under these most trying circumstances. But the teacher's profession finally won recognition, and then largely through the persistent efforts of Francis W. Parker. His normal school sounded the death-knell to the ridiculous pretension that everybody that chose to be could be a teacher. It emphasized the truth that knowledge is the least part of the

teacher's qualifications. Teaching is both a science and an art. Few are they who can wear the miter of its priesthood. And they that minister in the temple of elementary or other education must pass many years in self-searching preparation before they can be admitted to the diaconate and the higher orders. * * *

LETTERS AND TELEGRAMS FROM FRIENDS.

Colonel Parker was an educational hero, devoted to the improvement of methods in the elementary school. He showed great fertility of resources in discovering devices to secure self-activity in the pupils. His amiability, his devotion to the cause, and his contagious enthusiasm made him a myriad of personal friends, and many myriads of disciples who will mourn his death. His good work will live on and bless the generations yet to come.

W. T. HARRIS,
United States Commissioner of Education.

Colonel Parker made a distinct impression upon American education, because he first presented to the intelligence of the country the unwisdom of mechanical methods in instruction. It is quite possible that his philosophy was not new, but he was the first American teacher who had the force of character to put it in operation in a prominent New England town, and he possessed the accomplishments as a writer and speaker to command for it the attention of the country. He saw, long before the great body of American teachers, that children are not to be taught like dogs and parrots, by memorization, but by gaining their interest and starting their powers into activity. He was derided, but he commanded a hearing; he was opposed, but opposition made him more aggressive. He was extreme and intolerant, and the country never accepted his doctrines in their completeness, but in very large measure his contentions have come to be universally adopted. It could hardly have been so but for his aggressiveness and intolerance. He broke out new roads and it could only be done by harsh and heavy implements. He was a ready writer and an accomplished, even unique, public speaker. He was an inspiration, and a very welcome one, in all educational gatherings. Withal, his was a genial spirit, a sympathetic nature. He made friends, even disciples, of his students, and the elements in his unusual character drew unto him all who came within his reach. His death is a loss to American education, but he has a place in our educational history and it is secure. Half a million American teachers will be pained at the news of his death and would like the sad privilege of laying a flower upon his bier.

A. S. DRAPER,
President University of Illinois.

My life in Chicago is a little longer than was Colonel Parker's. I have watched him through all the strain and stress of his tireless career, and in it all I detected that enthusiasm for liberty, that love of childhood, that devotion to progress, which made him so persuasive an influence, his presence perhaps more felt at a distance than near at hand. He was a pioneer who took the knocks that make it the easier for those who follow. If only they would appreciate this and press forward with the banner that has fallen from the hands of their leader, it is well. A brave heart has ceased to beat; may the hearts of his friends beat the more heroically!

JENKIN LLOYD JONES.

In Colonel Parker I lose a valued friend and the young people of the United States one who gave his life to their service; but while we mourn the wise and gentle man gone, we rejoice that he has so impressed his spirit and ideas on his pupils that his work will be carried on and his influence spread in ever-widening circles as time goes on.

ALEXANDER GRAHAM BELL.

It is difficult to write with moderation about Colonel Parker now. There has not been time to recover from the shock of sudden separation. Strong personal attachment is not perhaps the most favorable condition for discriminating judgment. To me he was the most original and interesting personality prominently identified with popular education since the time of Pestalozzi. While he was far more happily conditioned than the Swiss reformer, he was at the same time immeasurably his superior as a teacher and leader. He was completely liberated from the old knowledge ideal of Renaissance. What Montaigne had made the theme of his scholarly essays on education Colonel Parker had embodied in a school. He not only reiterated forever the maxim of Comenius, that we learn to do by doing, but he supplied to little children the conditions for the most rational and helpful doing. He did not content himself with joining Rousseau in withering condemnation of the verbalism and mechanism of the schools, but he made a school that was at the same time a beautiful home, where childhood was dignified by the ministry of the wisest and best teachers that money could employ. There is no teacher in all our common country that is not his debtor. He was always insisting with all of the vehemence of his tremendous power that education is the supreme concern of the state, and that teaching is incomparably the most important and the most elusively difficult of all the arts, and that within the narrow round of the school there is ample space for the exercise of the rarest gifts that lift the divinely selected souls above their fellows. He is the last of his race. He was vastly larger than his philosophy. Our grievous loss is this great personality, so unique, so magnetic, so personal that no doctrine can ever take its place.

Dr. JOHN W. COOK,
President Northern Illinois State Normal School.

I am shocked beyond expression at the news of the death of Colonel Parker, a friend of many years, and one whose strong, virile personality had won its way deep into the hearts of thousands of the men and women of America. The whole history of American education has never seen purer idealism or more sincere devotion than Colonel Parker's. He believed in democracy with all the fervor of his nature, and his love for the child and childhood knew no limits. As a great inspiring force who was impatient of artificial trammels and of formulas when life and spirit were at stake, he has had no equal in our public-school service. His heroism in the schoolroom will be vividly remembered long after his unselfish service to his country on the field of battle has faded into history. His death is to me a deep personal loss, and I sympathize profoundly with his friends and associates of many years who have labored with him for as lofty an ideal as has ever been conceived by the human mind, namely, the ideal of a free and educated democracy.

NICHOLAS MURRAY BUTLER,
President Columbia University.

I have known Colonel Parker and his work ever since he began at Quincy, Mass. The country loses in him one of the greatest educators we have ever had. Elementary education in this country owes more to him during the last twenty years than to any other man. He has been a magnificent ferment, stimulating activity everywhere, and breaking up monotony and routine, to which education as by an iron law always gravitates. Few have ever been more devoted lovers of children and of the teacher's work, or done more to infect both those within and those without the rank of the profession with this passion. His function has been not unlike that which Socrates ascribed to himself, that of a gadfly to stir up the magnificent but sluggish Athenian people. No man in the profession would be so widely and deeply mourned.

G. STANLEY HALL,
President Clark University.

ADDRESSES DELIVERED AT THE MEMORIAL EXERCISES GIVEN BY THE PUBLIC-SCHOOL TEACHERS OF CHICAGO AND COOK COUNTY, AUDITORIUM, APRIL 19, 1902.

BY ORVILLE T. BRIGHT,

Superintendent of Schools, Cook County, Ill.

Francis Wayland Parker had no other ambition than not only to be called but to be a great teacher. His love for children was all-pervading and intense; his capacity for work in their interest knew no limits; his desire and determination that the public schools should furnish the very best opportunity for the all-around development of childhood, both in subject-matter and administration, were fixed and unswerving; the only rivalry he would tolerate was between what the individual child did and what he was capable of doing. When only ridicule was heaped upon the advocate of the kindergarten, of music, drawing, and manual training by the entire press, 90 per cent of the people, and three-fourths of the teachers, Colonel Parker saw clearly their tremendous educational importance, and was just as stanchly their defender as we are now, when to stand for them is only respectable. The elements of his character were so pronounced, his personality was so vivid, his faith in the future so certain, he was so intensely alive, and his great heart beat so warmly and so truly for his work, for his friends, and for all the children that it seems almost impossible that we shall see him no more.

In the few minutes at my disposal I wish to speak only of Colonel Parker's work in the Cook County Normal School, as I was officially connected with that work ten out of fifteen years.

When Colonel Parker accepted the responsibility of the Cook County Normal School and entered upon the great work of his life the situation was not only not ideal, but it would have daunted a less courageous man. To specify:

There was an ill-arranged and dilapidated school building, a dormitory in like condition; there was no library to speak of, no science laboratories, kindergarten, manual training, or gymnasium; very little apparatus of any kind; and a faculty with about an equal mixture of competence and politics. The press of Chicago was hostile, not only to the school but to the training of teachers in any way. The city teachers and principals were very conservative with their friendship or openly hostile, and the school was ignored by the Chicago board of education. The attitude of the Chicago schoolmen was much like that of the Boston masters to Quincy in the years then just gone. The only thing about it of which we had no doubt was that we didn't believe in it. The one thing of which we might

with reason have been certain was that we didn't know anything about it. The financial support of the school by the county was niggardly and precarious. The fact of the matter is, the conviction that young men and women should be trained for their work in order to teach little children existed only here and there. The general public was against it. Less than twenty years have exactly reversed this sentiment.

It may well be understood that the normal school presented excellent opportunity for limitless work, courage, inspiration, and vigorous administration. It got them all. Some people have questioned Colonel Parker's suaviter in modo, but none have cast a reflection on his fortiter in re. The first year showed plainly that the faculty must be reorganized, and the doctrine that the president of a normal school should control the appointment or dismissal of the teachers was flatly presented to the board. The fight was brisk, but it was short and decisive; the question was never again raised, but dire threats followed the failure to prevent the first elimination of teachers, and, later on, five or six years of bitter struggle showed how sincere they were.

Present limits will not admit of any detail in regard to the next fifteen years' work. A vigorous policy, conceived in honesty, is sure to make enemies, but it is just as sure to make friends, and the friends of the Cook County Normal School were sturdy and true and fearless. Crises were frequent and acute. In 1890 the bitterest enemy of the school secured appointment on the county board of education, and immediately proceeded to a series of the most unfair and unreasonable examinations of the practice school. The results of these examinations were published and sent over the entire country, but the spirit that instigated them was so apparent that little harm was done. The avowed object was to "down Colonel Parker," but he wouldn't "down." From 1890 to 1898 the struggle was incessant, and annually for several years the result turned on one single vote, but we always got that vote. Moreover, the school received better financial support. The work of the school went nobly on, gaining each year, Colonel Parker never for a minute losing courage nor doubting the outcome. Students came from all parts of the country, and some from other countries, and for the last few years of the Cook County Normal School we had a hundred fine graduates each year. The practice school increased so that there was not room for the children. A choice library grew up, including 10,000 volumes, and a collection of more than 20,000 clippings and pictures, selected, mounted, and catalogued by Mrs. Parker. Effective gymnastic training was provided, excellent laboratories were established, together with valuable cabinets, both historical and natural. A fine kindergarten and manual-training department were added, and a printing establishment was set up. There was a general renovation of the buildings, new furniture was supplied, and the schoolrooms were beautified with pictures and casts. But, as part of the school, all of these were as nothing when compared to the corps of teachers Colonel Parker's tireless efforts had gotten together. A few of these teachers had been found ready-made, but most of them were trained in the school, and it is safe to say that no more earnest, efficient, and devoted body of teachers ever worked to carry out the purposes of an inspired leader.

January 1, 1896, the Cook County Normal School, thus thoroughly equipped, with its magnificent property and its splendid record, was transferred to the city of Chicago and became the Chicago Normal School. Not only the school property but the entire faculty was accepted by the city board of education. It was a memorable night for the city of Chicago. The school was adopted because the people of Chicago demanded it, and this demand was voiced by the Chicago press. The faculty, including Colonel Parker, was retained in charge of the school because the people of Chicago would not have it otherwise, and hundreds of them were in attendance at the meeting, so that there should be no mistake as to what

they wanted. The excitement was intense and the scene dramatic. The shuffling uncertainty of conservatism was on exhibition, as it always is. The man who had struggled so persistently to bring about the downfall of Colonel Parker was then a member of the city board, but he was obliged to submit to the inevitable; the people had their way, as the people always can have their way.

From the Chicago Normal School, under Colonel Parker, two classes of nearly 400 each were graduated, and these city students have shown the same loyalty to their leader as was formerly shown by the students of the county. In the spring of 1899, on the recommendation of Colonel Parker, the course of study was changed from one year to two years, and this was his last service to the city as principal of the school, his resignation following in June of the same year.

The influence of the Cook County Normal School on the schools of Chicago, of Illinois, and of the Northwest has been profound. Nothing could be wider of the mark than to speak of this school as a training school in methods or devices. The aim of instruction was set forth in a report of the principal in 1890. Pupils were entitled to diplomas on the fulfilment of certain conditions:

1. Attendance for the full time allotted.
2. Satisfactory evidence of a high appreciation of the duties, responsibilities, and possibilities of the teacher's profession.
3. Sufficient knowledge and skill to warrant the beginning of the work of teaching.
4. Ability to control, govern, and teach a school fairly well.
5. A knowledge of the principles of education, sufficient to guide the candidate to the discovering of right methods.
6. A love for children and devotion to the work of teaching.
7. Tact to adapt oneself to circumstances, and, at the same time, courage enough to cling to a growing ideal of the teacher's functions.
8. A close, earnest, persistent student of the science of education and of the subjects taught, and a habit of preparing very carefully every lesson and all other work.
9. Good health and an excellent character.

So far as academic education was concerned, a four years' high-school course was demanded for admission; but Colonel Parker's ideal of preparation is stated in these words:

A four years' course in a good college should supplement a high-school course before the student enters upon professional training. It is far preferable to have a college course without professional training than to have only a high-school course with training. The true requirement should be the college course *and* professional training.

Again he says:

There is no question that the fundamental cause of imperfect teaching is due to the ignorance of the subjects to be taught, or that the abuse of text-books is largely due to the same cause; it is also true that the mere study of methods can not be substituted for deficiency in knowledge of subjects taught.

Again:

If a pupil after years of study has not acquired a deep, abiding love for the subject studied, he has acquired very little. A strong desire to continue indefinitely the study of a subject is the result of proper teaching and is an unfailing indication of true knowledge of that subject. The first endeavor in the work of the professional training class, and the one too often omitted altogether, is to cultivate an all-controlling desire for study.

And again, so far as school government is concerned:

The one rule of order is: Do everything possible to help the work of the school and nothing to hinder it. The direct function of the teacher is to help others, and the main idea of the school is to develop this function among the children.

This is a high standard for the training of teachers, and it is the standard which controlled in the Cook County Normal School. It makes the inculcation of methods and devices seem petty and trivial. From the standpoint of teachers bound to a course of study, requiring a given amount in a given time, and where estimates of proficiency were gauged by per cents and final examinations it was hard to understand. Time and patience were required to make this standard prevail to any great degree among public-school teachers, but at the present time the schools are few indeed which have not felt its influence to a greater or less extent. Since Colonel Parker came to Chicago the whole spirit of teaching has changed. The study of children and their needs has been profound, and the work of the school has been determined from the standpoint of the child rather than from that of the adult. The new education has put teachers on the defensive as regards subject-matter to be taught and when to teach it, and as to the management of children. The defense of the teacher's work and the furnishing of adequate reasons therefor are sure to modify that work, if not radically change it. This service to the schools has been incalculable, and it would be a poor observer indeed who should not accord to Colonel Parker profound influence in bringing about this result. Sincerity, which was born of profound conviction, prevailed in all the work of his school, and this sincerity was developed in his pupils. As a superintendent of schools, I have been associated with hundreds of them, and they have been more zealous to learn, more susceptible to suggestion, more earnest inquirers after truth than any other teachers whom I have ever known. The prevailing sentiment among the graduates of the normal school was that their work in learning how to teach, instead of being finished, was only begun. The criticism has often been made that the quality most prominent in the graduates of normal schools is conceit, but I should say of Colonel Parker's students that this quality is most noticeable for its absence. The graduates of the Cook County Normal School have become leaders in education in many parts of the country, and they have preserved an unswerving allegiance to the man who was the inspiration that determined their educational ideals. The influence of these graduates has, of course, been most felt in Cook County and northern Illinois, where they have been most numerous.

Illinois has sometimes been called the storm center of educational thought and progress during the past five years. To whatever extent this is true it is due in no small degree to the high standard and the unswerving purpose which obtained as a part of their training.

The all-important correlation of studies, as it has to do with proper mental development and economy of school time and effort, received its greatest impulse in the carefully elaborated course of study which appeared in 1892. Few schools could carry it out in its entirety, but it has greatly modified a large proportion of the courses of study made since that time. Its influence is most notable in three ways: In the very general study of elementary science which has prevailed in primary and grammar schools of late years; in the enrichment of the elementary courses of study with the literature suitable to childhood, and in the recognition of the principle that an all-around development of the child demands the training of the hand as well as of the head. * * *

BY BISHOP JOHN LANCASTER SPALDING.

The highest social functions are performed, not by conquerors or rulers or legislators, or the providers of the necessaries, comforts, and luxuries of physical life, but by teachers, whether they be mothers, priests, poets, discoverers, inventors, or schoolmasters; and that which is indispensable and of paramount importance

in the teacher is not so much knowledge as character, since the great purpose and end of education is to form character, and this can be rightly done only by men and women in whom there is a hunger and thirst for human excellence. Others deal with the things that concern life; the teacher, with life itself, which it is his business to foster, develop, and produce in higher and higher potency.

Character is a persistent pursuit of what one believes in, admires, loves, and feels himself able to accomplish. If this is material, he is a matter-of-fact man, having the significance and worth of a machine; if it is spiritual, he lives in a world of thought and freedom, where all things are possible. One may be drawn to what is useful and pleasant, or he may be overmastered by a passion for what is true and right, and so be empowered to neglect or scorn what is merely useful and pleasant. He whose ideal is use and pleasure belongs to the unreasoning crowd; he for whom truth and justice and love are the only sufficient ends of life belongs to the few, whose faith and example become light and strength for the purest and the best. If his country be made a desert, if his people be overwhelmed and scattered, he shall abide; for what he believed in and lived by is eternal.

This is the spirit of all genuine teachers. They believe in the good of life and in the surpassing power of right education. Their one aim is to uplift, strengthen, and enlighten men; to enable them to know and love the vital truth, which gives the inner freedom that makes man the noblest and most blessed of God's creatures. That one should be poor, should be unrecognized, should have to toil that he may live, is not in their eyes a thing to be dreaded. For them the infinite evil is to be ignorant, is to be base, is to be the slave, not of a tyrant, but of instinct and passion, of lust and hate and greed. Poor men have been heroes acclaimed of all the world. Men who have walked and died in obscurity have risen to shine forever like fixed stars. The divinest being who has appeared in human form toiled that He might live; but the victims of ignorance, of greed, of hate and dishonesty, though they be kings, though a nation's wealth be heaped about them, are interesting only as a contrast to what constitutes the worth and dignity of man. They are but weeds that prove the soil's fertility. Though the people dream and think and talk of trade and commerce and wages; though they place but a money value on genius, virtue, and beauty; though they consider as naught what can not be weighed or counted, the God-appointed teacher, with ever-growing insight, sees that the real things whereby man's soul is nourished can neither be weighed nor counted. He is a lover of human perfection—intellectual, moral, and physical. He would give his life to make men wiser and more virtuous. He feels that all values are educational values—means whereby life is sustained, enlarged, and purified; that life itself is enrooted in God and draws from Him its substance, its energy, its beauty, and goodness.

No genuine teacher has ever been inspired or guided by mechanical ideals. His genius and power spring not from the arithmetical or logical faculty, but from his capacity for infinite faith, hope, and love, of which are born infinite patience and painstaking. It is his sympathy with all that is human that gives him the insight which imparts the skill to develop what in man is best. Above all is he attracted to little children whom God sends into His world to awaken sympathy, love, and devotion; whom He showers like blossoms in spring to teach us to hope and labor for ever diviner harvests. His spirit is rather that of a generous and dauntless youth than that of a calculating man. There is in him something of Plato and vastly more of Christ. He is an idealist and reveals the soul to itself. His pure eye reflects the azure heavens; the flowers spring from beneath his feet; he is free, tranquil, and joyous, at home in his Father's house, though he be beset by enemies and have not where to lay his head. No difficulties affright, no obstacles deter him. He is certain that the work he does is the noblest task which

can be set for man. He therefore does it with all his heart and finds sufficient reward in the doing.

Such a man and such a teacher was Colonel Parker. He was not a man of rich and varied learning, not an original thinker, not a logical reasoner, not a master of style; but he was one whose faith in the power and value of education was deep and living. Such a faith, springing as it does from genuine interest in human perfection, begets an abiding enthusiasm which leaps from soul to soul. He who is thus inspired is not indifferent to anything that concerns the welfare of his fellows. He stops not to argue; he hears not those who suggest doubts and misgivings; he asks not whether there be danger of failure. An inner impulse urges him on; he will do what he can, come what may. His presence breathes courage, confidence, and gladness. His pupils feel that they are able to do what he demands of them, and so they become able. His voice is like the shout of captains when they lead to victory. His eye awakens and fixes attention; his whole manner stimulates and sustains the desire to improve. Where he is there is little question of rules, for he is himself a law for all, putting forth the highest educational force, which is the influence of a genuine personality on persons. When, a quarter of a century ago, Colonel Parker was put in charge of the schools of Quincy, they were quickly transformed, as the spring rain and the sunshine transform the naked earth. A new spirit breathed, and a new life sprang forth; and it was not long before teachers all over the country began to lift their eyes to this dawn which had broken with promise of a fairer day. Here was one who trusted in man's creative soul more than in mechanism and methods and routine and drudgery. Here was a bringer of hope and joy to the teachers who were wandering neglected and unillumined mid arid wastes. They began to look to him as to the leader for whose coming they had yearned.

What he brought them was not a new and original theory of education and pedagogy. It was a new spirit which was to interfuse itself with their work, and little by little to transform the whole process of teaching. The schoolroom became more like a home where there is a loving association of all the members; where life is free and joyful; where work is pleasant, and invigorating; where the tiresome routine of text-book and recitation is relieved by drawing, modeling, and music; where the pupils are gently led on to express their own thoughts in their own words, and not passages learned by rote. Obedience, confidence, courtesy, and respect were made easy; individuality was developed; the duller pupils were encouraged and assisted, while self-consciousness and conceit were repressed in the brighter. The yoke of slavish conformity to rules was lifted from the neck of the teachers, who were accustomed to study the peculiarities of each child and to fit the means to the end, while they themselves were made to feel that the essential and decisive thing in a teacher is not learning, but ability to teach. In the examinations the test was skill, power to think and do, and not merely knowledge.

The teacher is the school, and it was to the forming of teachers that all Colonel Parker's efforts were directed. He believed that the most important social function is performed by the educator; and he held, consequently, that the best work one can do for society is to raise to highest efficiency the men and women whose vocation is to inspire, instruct, counsel, and guide their fellows, not in the things which concern their temporal affairs chiefly, but in whatever pertains to wisdom, conduct, and character. The good is all that ministers to spiritual life, to intellectual strength, to moral freedom, to righteousness; and they who follow the teacher's calling should feel that their task is God-given, that their work is divine. They should have courage, self-confidence, enthusiasm, zeal, devotion; and that this may be possible they must be trained in the atmosphere of liberty, wherein alone self-respect and self-reverence, the foundation of all virtue, can be learned.

They must be able to do their work with a cheerful and joyous spirit, for whoever does well and wisely acts in this spirit. That they may dwell in the pure air of high and tranquil thoughts, they should be protected from all annoyances and restraints other than those necessarily involved in the work they do. They can not succeed if they have not the willing mind to which nothing is hard, and everything, therefore, should be done to create and foster in them love for their work.

The brave and cheerful delight us, have power over us, and influence us for good, because their world-attitude is the result of a true view of things, which, in revealing to us that to be is better than not to be, creates within us the feeling that the more we are alive the more nearly we are akin to the eternal source of all that is.

To these help-bringing and joy-inspiring souls Colonel Parker belongs.

That he was a lover and molder of teachers it is not necessary here in Chicago, or in America indeed, to affirm. As the principal of the Cook County Normal School he sent forth, year after year, eager, enlightened, devoted men and women, whose work in the schools of Chicago has not been rightly recognized or appreciated by the people of the great city in which they have wrought with so much intelligence and zeal. He himself was not understood or esteemed at his real value except by the few who entered the narrow circle of his personal influence. How shall an idealist, an enthusiast for human perfection, have honor in a world given over to the worship of mammon and vulgar success? Yet how pleasant it is to see an American who is enthusiastic about anything that is not a mechanical invention, or a gold mine, or a phenomenal increase of population or territory, or the sudden emergence of a plutocrat! But money and machines never inspired a noble thought or a pure love or an unselfish devotion. They can not create the moral climate wherein the bringers of divine gifts live.

They tend to make men the victims of routine and detail; they beget a servile spirit by turning thought and desire to the pleasure and the power which wealth procures, away from the pleasure and power which are born of the exercise of the higher faculties, which spring from the activity of the soul, from the intellect, the conscience, and the imagination. They destroy faith and freedom, and fashion a public opinion which calls liberty license, and accustom the people to prefer material interests and ends to those which are ideal and absolute. So the great principles and heroic faith which enabled our fathers to establish this Government are forgotten and forsaken. There is no more certain symptom of such general decay than the loss of liberty in the schools. If the individuality of the teachers is repressed; if their sense of security is enfeebled; if it is made difficult or impossible for them to work with brave and cheerful hearts; if they are controlled and hampered by petty rules and regulations, nothing can save the school itself from ruin.

It was his firm grasp of this fundamental truth that made Colonel Parker an educational leader, a lover and teacher of teachers; and if we are to save our democratic institutions and civilization from destruction, we must more and more work in his spirit.

AN ESTIMATE OF COLONEL PARKER.[a]

By WILLIAM RAINEY HARPER,

President of the University of Chicago.

In the field of elementary education the most significant single event—that which has touched the largest number of persons and affected them most keenly—has been the death of Col. Francis W. Parker. As in the case of most men who

[a] From a report made to the National Council of Education, Minneapolis, July, 1902.

have accomplished much, the greatness of his work was not fully apparent until he was taken away. The universal appreciation of his leadership, the universal testimony to the greatness of his career, and the universal mourning over his sudden death, together constitute the most striking event of the year. That he should be taken away at the very moment when he was about to enjoy the fruition of a lifetime's work, and that he should not be permitted to enter the buildings on whose plans he had spent so much time and energy, was indeed pathetic; but that he had built foundations broad and strong for future work in the field of elementary education; that he had made noteworthy contributions to the cause of public school education; that, indeed, he was one of the great leaders of the last quarter of a century is everywhere acknowledged.

FRANCIS WAYLAND PARKER.[a]

By FRANK A. FITZPATRICK,

Boston, Mass.

To write of Colonel Parker's work in such a dispassionate way as to form a lasting estimate of the value of his services to the cause of education in the United States would require a perspective of years and also a mind free from bias toward or against Colonel Parker's personality. It is not easy, even taking into consideration Colonel Parker's great qualities and his weaknesses, to make a fair, comparative statement of his services from the standpoint of a friend.

Among the multitude of able, self-sacrificing men who have contributed notably to the improvement of elementary schools during the last fifty years, it will not be deemed invidious, I trust, to mention the names of Victor M. Rice, of New York; Horace Mann, of Massachusetts; J. M. Wickersham, of Pennsylvania; Newton Bateman, of Illinois, among the State superintendents of public instruction; William T. Harris, John Hancock, A. J. Rickoff, J. L. Pickard, George Howland, W. B. Powell, among the city superintendents, and D. B. Hagar, Edward A. Sheldon, Richard Edwards, Francis W. Parker, Joseph Baldwin among the normal school presidents.

However, an overwhelming majority of teachers familiar with the development of elementary schools, it is believed, would place the names of Horace Mann, Edward A. Sheldon, and Francis W. Parker as indisputably the greatest reformers of this period, and to me Francis W. Parker is incontestably the greatest. Horace Mann, outside of Massachusetts and New England and a section of Ohio, was merely an echo from some other world. Edward A. Sheldon had a wider influence in uplifting primary education in the area reached as well as in the extent of his vast personal influence upon his associates and followers; therefore, while less known to the general public because seldom engaged in controversies, and of a more retiring nature than Horace Mann, his influence was more farreaching and more potent upon the cause of primary education in the United States. As compared with Mr. Sheldon, Francis W. Parker had the whole of the United States for his theater of action. In addition to the qualities possessed by the two other great reformers just mentioned, he had a fire of enthusiasm, a contempt of criticism, a fearlessness of expression, a gift of prophecy, and a belief in the triumphs of the innovations which he championed which endeared him to the hearts of teachers everywhere. Charges of inconsistency had no terrors for him. Insinuations relative to his lack of scholarship, cynical remarks contrasting his position with that of the confessedly great thinkers of his time, did not affect

[a] Reprinted from the Educational Review, June, 1902.

in the slightest degree his sermons, painting in graphic and exaggerated forms the narrowness and emptiness of prevailing methods in the elementary schools, holding up, like a new Peter the Hermit, a vision of the new life and changes of which he was the prophet. He never hesitated to criticise opposing views, no matter who elucidated them or what the time or place. Every meeting where educators gathered together was to him a forum, an arena, calling upon him to enter the combat.

His life as a teacher may be divided into three periods—that closing with his leaving Manchester, that beginning with his experience at Dayton and ending with his resignation in Boston, and that beginning in Chicago as principal of the Cook County Normal School and ending with his death. The first period of his life was characterized with industry, zeal—often misdirected—and great fondness for children. The second period of his life, beginning at Dayton, is noteworthy as marking his transition from the position of a grammar-school principal, who is seeking to do the best that can be done in the conduct of his particular school, to the higher plane of relating his thoughts and management to that of the best thought of the great teachers of all time. To other men of his time these thoughts appealed perhaps as strongly as to Colonel Parker, but they lacked the strenuous element which, always prominent in Colonel Parker, made him put the expression of his best thought into the schoolroom.

He was not deterred from this by his inability to see the outcome of his experiments or because he could not definitely plan out the various stages of growth through which his pupils would pass, or because he could not answer even in his own mind the objections which were urged against the practicability of doing in the schoolroom what theoretically was the best thing to be done. In the conflict which resulted in Dayton we can see in Colonel Parker the birth of his sweet dogmatism, usually characteristic of the man of action, and at the same time his open mindedness to what came to him from the outside world. It would have been a calamity to the schools of the United States, however, as well as a great hindrance to the development of Colonel Parker, had his triumph in Dayton been so pronounced as to cause him to remain there. His studies in Germany, his acquaintance with the scientific methods of the trained German schoolmasters, gave him the power to clarify his views and also gave him standards by which to gauge the efforts of teachers which made it possible for him to see some things in his profession in a proper perspective.

The story of his coming to Quincy has often been told. Yet in some inscrutable way it has grown to be believed that the schools in Quincy were in a very bad condition at this time. The belief that such was the case among superintendents and boards of education had a pronounced effect at this period in the direction of decrying and discrediting the value of the work done in Quincy during the five years in which Colonel Parker was superintendent. In the report of the very able school committee of Quincy for 1874–75, the year before he was elected superintendent, I find this statement: "At no time within our observation has the average condition of the public schools of this town been so satisfactory." "As regards order and discipline very little fault can be found." "That very much is still to be desired in our system of teaching is too evident for dispute." "That after eight or nine years of constant study in our common schools select pupils should show an amount of acquirement no greater than the examinations for admittance to the high school annually disclose indicates that there is something lacking to the complete efficiency of the system."

There is no reason to believe, therefore, that the schools of Quincy were any less efficient than those of any other towns and cities either East or West. The next annual report of this committee continues: "The committee had long felt the necessity of a gradual remodeling of our system of teaching. If we wished

to keep up with the march of modern improvements in pedagogics it had become essential to introduce important modifications in our method of imparting knowledge." And this bringing up of a whole teaching force in a town to a high plane was the first result of Colonel Parker's work in Quincy.

Coming at a time when the State of Massachusetts was beginning to formally recognize the necessity of skilled supervision of city and town schools the object lesson set forth in Quincy, the challenging of existing methods of teaching and of school management, in the forceful, exaggerated terms presented by Colonel Parker on every opportunity, compelled the opposing forces to draw their lines of demarcation in such a way as presented the issues at stake clearly and definitely before the people. The accessories of an able and progressive and open-minded school committee in Quincy, the development and establishment of a number of ably edited school journals which presented from time to time the salient elements of the controversy, the interest of the newspapers, attracted doubtless by the new features of Colonel Parker's utterances—all these conspired to give a laudable publicity to the experiment in Quincy which every other school reform movement of our times has lacked.

Within an appreciably short time, therefore, the attitude of teachers and school officers toward the discipline in elementary schools changed in the most remarkable manner. The first result of this was the development of a new spirit in the schools, that spirit which our foreign visitors in 1893 thought so wonderful and found so general. Such a condition as is here set forth had an immediate indirect influence upon the teaching in the schools. With the development of freedom in the elementary school came the necessity for better teaching. When rigid military order was no longer possible chaos and disorder immediately appeared, unless the children were interested in their studies. The hearing of lessons, the setting of definite tasks away from and outside of the interest of the children, immediately became very much more difficult, and along the lines of least resistance came a wonderful development of skill among the teachers of the lower grades of the elementary school. The real development of the successful summer school, and the great renaissance of elementary teaching, sprang very largely from this conscious need of teachers to fit themselves for existence in this new atmosphere.

Professional study was, as it were, a necessity, and those teachers who ignored this necessity were soon made conscious of their delinquencies. What might have taken twenty-five years to accomplish was rapidly gained in almost as many months.

Measured from this standpoint, Colonel Parker was incomparably the greatest force for educational good that the elementary schools of this country have ever known. To him more than any other man is due the fact that the schools of the whole country have been decrystallized and imbued with sweeter and higher ideals, and therefore raised to a higher standard of efficiency and accomplishment. He lived to see his views and phases of methods which had been characterized as "theoretical," "visionary," "impracticable," "foreign to our civilization," "tending in the wrong direction," "leading to vast expenditures," "impossible to relate to our common schools," formally accepted by everyone in authority.

One of the most remarkable things connected with the administration of Colonel Parker as superintendent of schools of Quincy is the fact that notwithstanding the immensely bettered condition of the schools, consequent upon lifting the teachers to a higher plane in spirit, skill, and efficiency, the amount of money expended for the support of the schools in Quincy was no greater than that of the years preceding his administration. When one takes into consideration Colonel Parker's well-known weakness and distaste for financial administration, one is at a loss to understand this great achievement at the outset of his career when contrasted with his experience at Chicago. Colonel Parker, during the whole of his

life, was a tremendous indirect force acting upon the schools of the country through the education of teachers under his supervision who were continually drawn upon by school systems in other sections of the country. Great as was his influence at Quincy and in Chicago, tremendous as was the development of the schools under his charge, that growth would have been infinitely greater had it not been so impossible for him to keep any large proportion of the teachers to whom he gave new ideals and greater efficiency. Therefore both in Quincy and Chicago his teaching force was continually changing and shifting—capable and efficient teachers continually accepting better positions elsewhere and leaving their places to be filled by more or less undeveloped teachers.

Nearly all the valid criticisms that have been made against Colonel Parker's administration in Quincy and Chicago have been based upon observation of the work of some of these more or less inexperienced teachers who were in a stage of transition toward better methods.

It was a fortunate thing for the cause of education when Colonel Parker resigned in Boston that he chose the principalship of the Cook County normal school rather than the superintendency of a large city in the East. He was so constituted that he was happier and more efficient in situations where he could see with his own eyes all that was going on than where he would need to operate and direct through many intermediaries. The West, too, was more ready to listen to the new prophet, more willing to change the point of view, more ready to welcome what seemed to be an improvement than older sections of the country.

Pearson, in his National Life and Character, points out that in England the mental attitude toward any new invention or new process is always, "This can not amount to anything, or it would have been discovered long ago;" while in the United States and in England's colonies the attitude is, "If this invention is a good thing and this process is valuable, we want it." The West, with few vested rights, with little self-complacency, with less settled society, with fewer recognized great names in education, is not always discriminating in its welcome to new prophets, but is always open minded. The time, too, was ripe for the appearance of a new force. More or less stability had been given to the scattered forces in the schools of the West through the efforts and influence of John Hancock, in Cincinnati; Andrew J. Rickoff, in Cleveland; William T. Harris, in St. Louis; A. C. Shortridge and George P. Brown, in Indianapolis; Richard Edwards and E. C. Hewitt at Normal, Ill., and J. L. Pickard, in Chicago.

The impulse toward improved methods and better schools which had emanated from these centers had extended so far through their ever-broadening circles of influence that a general agreement had been almost reached, and the schools were proceeding in a steady and slow movement upward. It was at this time that Colonel Parker, with his enthusiasm and beautiful personality, appeared to disturb this general feeling of satisfaction which was fast possessing educators in the West.

The Cook County normal school was then a most excellent school, limited in various ways and provincial in others. Under Colonel Parker's management the standards for admittance were raised; the attendance largely increased, coming from almost every State in the West. The quality of the teaching in the school kept improving constantly in all of the elements which go to make up enthusiastic and scientific teaching. With a school growing largely in numbers, extending its influence so that it became truly national, drawing to its corps of instructors teachers with reputation and ability, it was certain that the cost of such a school would continually increase. Because of this fact and because of Colonel Parker's singleness of purpose to elevate the school, he came in contact with both conservative and reactionary forces to such an extent as would have discouraged any man with less hope and less enthusiasm and less strenuousness in his nature; but not-

withstanding these troubles which seemed to gather around him, his magnificent personality carried the school in its accomplishments and efficiency higher and higher until it was the recognized professional school for teachers in the West.

During this period of his career his addresses before county and State teachers' associations, his connection with some of the great summer schools, continually widened and added materially to his increasing reputation. He therefore became really a national character—the one great leader whom teachers in elementary schools recognized as their apostle.

Every movement which has affected for good the efforts of the teachers in our elementary schools in our time certainly gained potency largely from the influence derived from Colonel Parker's life work.

Every pupil in these schools has been given advantages and opportunities, and every teacher has been influenced in her struggle for more light, by the great educational movement for which Colonel Parker will ever seem to stand sponsor. His judgment of men and women who taught with him has been wonderfully borne out by their rise and influence. Indeed the history and development of the new education in the United States might easily be written from the growth and influence of those teachers now living who have been associated professionally with Colonel Parker.

We in our time shall not see his like again.

CHAPTER V.

THE WORK OF CERTAIN NORTHERN CHURCHES IN THE EDUCATION OF THE FREEDMEN, 1861–1900.

By A. D. MAYO, LL.D.

CONTENTS.—The American Missionary Association.—The Freedmen's Aid Society of the Methodist Episcopal Church.—The Presbyterian Church (North) in connection with the schooling of the freedmen.—The Protestant Episcopal Church in the education of the colored race. The Society of Friends in the education of the colored people of the South.—The Baptist Church of the Northern States in the education of the colored race in the South.

THE AMERICAN MISSIONARY ASSOCIATION.

The first and still the most notable of the several great missionary associations for the training of the negro race in the Southern States, through schools of every grade and the ordinary methods of mission work employed by the Evangelical Protestant churches in the Northern United States, was the American Missionary Association. It was incorporated January 30, 1849, with a constitution containing ten articles. Article I announces its purpose "to conduct Christian missions and educational operations, and diffuse a knowledge of the holy Scriptures in our own and other countries which are destitute of them, or which present open and urgent fields of effort." Its active and voting membership was limited to persons of "Evangelical religious opinions, who profess faith in the Lord Jesus Christ, * * * not slaveholders or in the practice of other immoralities." An additional fee of $30 constituted a life member; although "children and others who have not professed the faith may be constituted life members, without the privilege of voting." In a footnote, the term "Evangelical faith" is explained as in accordance with the Puritan creed. In Article VIII the antislavery clause of the organization is emphasized by the declaration that all its operations shall tend "particularly to discountenance slavery, by refusing to receive the fruits of unrequited labor, or to welcome to its fellowship those who hold their fellow beings as slaves."

As at first organized, during the twelve years previous to the opening of the civil war, the operations of the American Missionary Association do not especially concern the object of this essay, since there could evidently have been no field through all the fifteen slave States for the operation of an association that even refused to accept the money or the personal cooperation of slaveholders. Up to 1861 it was a general missionary association of the strict antislavery type, including all persons of the different evangelical denominations desirous of using a society freed from cooperation with one specified class. But the breaking out of the civil war and the drifting of large numbers of negroes from the plantations of Virginia to the army of Gen. B. F. Butler, with headquarters at Hampton, for the first time opened a wide door for missionary activity, which during the past forty-one years has never been closed. It has been stated in a paper which appeared in the preceding Report of this office that the first school for the "contrabands" was opened

by a woman, Mrs. Mary Peake, at Hampton, under the guns of Fortress Monroe. At the close of a three-years' service as agent of the Freedmen's Bureau in ten counties of east Virginia, Gen. S. C. Armstrong found a school of 1,500 colored pupils housed in the old hospital barracks and in the Butler School in that vicinity.

During the fourteen years after this first appearance in the schools for the colored race the work of the American Missionary Association grew apace. Between 1866 and 1870 it received $243,753.22. The Freedmen's Bureau, on its retirement from educational work, passed over a large sum of money to it, which was expended in the erection of the first buildings of the schools at Hampton, Va., Nashville, Tenn., Charleston, S. C., New Orleans, La., and other places. It is estimated that the people of Great Britain contributed not less than $1,000,000 in money and clothing for the colored people during these years. During this period the foundations of several of the association's most important schools were laid. Its first report after the close of the war appeared in 1869–70.

At an important convention held at Chattanooga, Tenn., November 24–26, 1869, reports were received from the churches established by the American Missionary Association (all open to a mixed membership of white and colored) and representatives from the schools already established appeared. At this initial period the new public-school system of the South, though recognized in the revised constitutions of all the reconstructed States, was not in a condition to supply the wants of any class. Indeed the aspirations, especially among the lower orders of the white people, and the discontent among the better sort with the policy of reconstruction, largely under negro rule for four years, found constant vent in opposition to the teachers and directors of the schools. If the negroes were to be educated at all, it seemed necessary that the work should go on under the direction of the same agency that since 1862 had been so active among great numbers of the colored masses. But from 1870 to 1876 the association failed to receive the assistance of the National Government, either by supplies or by personal protection from the remnant of the Army of the United States gathered at military posts through these States. The well disposed among the white people and the new State governments were greatly shorn of their power or influence to prevent a reign of disorder.

It was a mercy, under such conditions, that educational work should be in connection with a missionary enterprise, and really under one direction. And, although the people and clergy of most of the great Northern religious bodies had long since outgrown the church parochial system of schooling the masses at home, yet under the patronage of the educational missionary societies for the colored people a system of parochial schools for the negroes was placed upon the ground that is not yet abandoned. The American Missionary Association, now practically one of the great missions of the evangelical Congregational Church (the denomination under which the common school originated and was developed during the entire colonial period in New England), had never used this parochial church system of schooling to any great degree, and retired from it earlier than any other. It can not but be regarded as a misfortune that this system should have been so early associated with popular education in the minds of the better class of the Southern negroes that it has been very difficult to eradicate it, and at present, in many ways, it acts as a serious obstacle to the improvement and proper working of the common school of the American type in every State of the South.

But good things can not always be done, in the beginning, in the most approved fashion. The American Missionary Association took up the work among the negroes as it came to hand. It found the churches far more disposed to contribute funds, and teachers were more willing to go forth to a life of toil and sometimes of peril, uniformly of social and religious neglect by the Southern people of their

own color, in connection with an organization supplied and backed as was this association. In the reports of the American Missionary Association at this time we come across much information concerning the more important schools which, under different names, "universities," "colleges," "institutes," etc., have given their full influence and wrought with great success in the uplifting of the children and youth of the negro race.

It is impossible in this essay to give more than a glance at the different institutions or localities through which this great association for the past forty-one years has wrought for God and humanity and the general welfare of the Republic. A few brief notices will give the trend of its work, and the voluminous publications of the association will supply the interesting details.

In October, 1869, Avery Institute, at Charleston, S. C., was opened with 325 pupils, "mainly of the better class of colored people in the city." Besides this, there was in Charleston a school for colored pupils, established by the family and friends of Col. Robert G. Shaw, who lost his life at the head of his colored regiment in the onset on Fort Wagner; another school under Northern Presbyterian protection, and one sustained by the Episcopalians. The city of Charleston had already moved in the establishment of a free public school for the same class, of 900 pupils. In connection with the Avery Institute general missionary work was carried on among the negroes. All these agencies were also concerned with charitable work, and distributed large amounts of clothing and supplies and rendered assistance of various kinds, of which no estimate has been attempted in computing the pecuniary cost of the work during the past forty-one years. During the period of reconstruction a large school for colored youth was opened in Charleston by Mr. L. Cardozo, a free man of color and a graduate of the University of Glasgow, Scotland, where the Latin and Greek languages and other branches of secondary and higher education were taught. Cardozo and his brother became noted political officials in the reconstruction government of the State. This school contained 1,000 pupils and 20 teachers. The teachers of the American Missionary Association schools were gathered from the great body of churches to this attractive field, or had been employed in similar work during the war, or were known as friends of negro education.

Atlanta University, at Atlanta, Ga., was also getting upon its foundations. President E. A. Ware, of Connecticut, one of the most admirable of all the men connected with this early work, commenced in April, 1870, and presided over the building operations—a dozen of the colored boys armed with shovels digging for the foundations. President Ware read the proclamation of President U. S. Grant on the ratification of the fifteenth amendment, and made a few very stirring remarks. This proceeding is thus noticed for its historical value and because it is a fair representation of the spirit of these schools at the advent of the new order of affairs, to which Atlanta University has already been a large contributor.

In Louisiana, as already shown in the paper before referred to, the common school system, established by Gen. N. P. Banks in 1864, had gone the way of all positive attempts to anticipate the coming of the new education. Before the close of the war the American Missionary Association had sent to this State a band of 26 missionaries and teachers. The public schools opened by the arrangement of General Banks were under the superintendency of Maj. Rush Plumley, of Philadelphia. After the failure of this movement there had been no public schools in the State, outside of New Orleans, until 1869. The school law enacted that year was almost impotent, from lack of funds and organization and the want of local interest, and in 1870 it was estimated that at least 85,000 colored children in the State were without any educational privileges whatever. The American Missionary Association, in company with the Northern Methodist and Baptist missionary bodies, came to this inviting field, sustaining more schools in

the rural districts than all other agencies combined, aided by the Freedmen's Bureau as long as it was in operation. In 1870 it supported 50 teachers with 3,000 children in as many as 30 schools. Children were accustomed to walk 12 miles a day to attend these little district schools. The people could pay the board of the teacher if the schooling could be given. But it is also recorded that, as soon as the State came under the charge of the original white population, the American Missionary Association withdrew from this elementary work to give its attention to the secondary, higher, and professional grades. Straight University had already been founded, by the investment of $25,000 in land and buildings in New Orleans, contributed by the General Government through the Freedmen's Bureau, and soon announced itself as "incorporated in 1869, with the power to confer all such degrees as are conferred by universities in the United States."

The exalted titles of the schools established by this and other of the Northern educational missionary bodies have furnished occasion for a great deal of ridicule, which might also be applied to the same mischievous habit, in many portions of our country, of magnifying the character and grade of schools by the magnificence of their titles. There can be no doubt in the minds of the most reliable educators that this practice has been especially harmful to the genuine advancement in letters of the first generation of these children and youth gathered in schools, especially coming with the virtual indorsement of the churches of the Northern States to a people sunk in dense ignorance. It can, however, be truly said that the teaching faculties of all these seminaries have largely recognized the actual situation and labored as faithfully in laying the foundations of an elementary education as if they did not bear the learned title of professor or president. For many years the best of these schools were only of the secondary rank, and in the most successful only a meager half dozen of the 500 pupils in attendance could be pushed up to a college graduation. At present the majority of these seminaries are accepting the situation and giving to their pupils the mental fare adapted to their capacity, with a growing emphasis on a sound English education, the proper training of teachers, and industrial theory and practice in great variety. The great work, of course, has been in the field of religious, moral, and social advancement, in which all these seminaries have wrought with undisputed ability and success.

The new school at Hampton was at first largely aided by the American Missionary Association, which has always been its "next friend." But under the administration of Gen. S. C. Armstrong it was organized as an independent corporation with 6 teachers and 75 students. The institution received its charter from the legislature of Virginia, by which it was subsidized at the rate of $10,000 a year for the industrial training of its pupils; but its government from the first was in charge of a board of 14 trustees, including men like Gen. O. O. Howard; President Hopkins, of Williams College, Massachusetts; Hon. James A. Garfield, of Ohio; State Superintendent of Public Instruction B. G. Northrup, of Connecticut; and President R. E. Strieby, of the American Missionary Association.

At Wilmington, N. C., 800 pupils were instructed by the night schools of the American Missionary Association. "Three-fourths of the colored children of the State are living in ignorance. There are no sufficient schools for the colored people and there can not be till their young men are educated. There are but few colored men fit to hold civil office. We are trying [say the managers] to reform the religious worship of the people, so much of which is degrading and demoralizing."

To far-away Florida the American Missionary Association had gone. At Jacksonville during the war, in 1864, the opportunity of schools for colored children had been furnished under the supervision of the military. April 10, 1869, a normal institute had been opened, two stories high, with a library and apparatus, and rooms and arrangements for 300 pupils, at a cost of $16,000. There were

400 pupils, chiefly under the care of Mrs. Williams, of Deerfield, Mass., and 300 children were in the white schools. It is declared that this was the first normal school building erected in Florida. The State had already moved in the establishment of common schools, and it was compelled to look to the normal institute for the teachers of the colored children.

In Alabama, in the beautiful city of Montgomery, on a high hill fronting the State capitol where Jefferson Davis eight years before took the oath of the Presidency of the Southern Confederacy, was organized a school of 450 colored children and 10 teachers, in a fine building; the best schoolhouse then in the city. The teacher reports that he has "a normal class of 16 of the most promising young men and women it has been my privilege to see in any school, white or colored, south of the Ohio River." The superintendent of public schools, after examining 11 of these students for service in the adjoining county, says, "they were the first colored teachers we sent out to the country. They took the carriage in sight of the capitol where Jefferson Davis took his oath as President; where the first Confederate Congress met and sent the message 'to open on Sumter,' and in sight of the barracks where still hangs the sign 'Negro barracks,' where their fathers and mothers had been sold as slaves."

Berea College, Kentucky, situated at the foot of the great mountain world of the Central South, a region as extensive as the German Empire, inhabited by 2,000.000 people, generally loyal to the Union during the war, but still in the most primitive condition of civilization of any class of native-born people in the country, had been organized before the war by Rev. J. G. Fee, who, during the conflict, had been compelled to leave the State while endeavoring, at the risk of his life, to school the negroes. In 1869 it held its fourth commencement in the presence of one to two thousand of the country people. This college is the only school of similar rank that has been able to exist and steadily grow weighted by the union of the two races among its students and teachers.

Fisk University, at Nashville, Tenn., named from Gen. Clinton B. Fisk, one of the most active of the army men in the employment of General Eaton in the educational work in the valley of the Mississippi, had an attendance of 250. This school will long be remembered in connection with the tour of the first group of "Jubilee Singers," who went from State to State and to England and Germany, singing the old plantation melodies. They literally sung up the walls of the first college building for colored youth in Tennessee, the parlors of which are adorned by the portraits of some of the most distinguished personages in Great Britain. These children of freedom were welcomed everywhere and even flattered by the crowned heads of the Old World.

To Mississippi, at Tougaloo, near the capital of the State, indeed, to every State of the South, the American Missionary Association sent forth its missionary teachers, among them many women of large culture, high character, and social standing, to labor among the colored children and youth. In addition to the laborious office of teacher and practically mother, these excellent people were burdened with the responsibility of preparing their crude and wayward constituency for the "grand and awful time" to which they had been awakened as by "the new Jerusalem coming down from Heaven, adorned with shining grace."

At Washington, D. C., Howard University, a seminary of the secondary academic, higher, and professional education, had been established as one of the first of its kind and subsidized generously by an appropriation from Congress. As in other schools, the American Missionary Association was interested in its beginnings, although it is now an independent corporation, receiving an annual grant from Congress. There were 506 teachers and students at Howard, representing the sixteen former slave States and the District of Columbia.

In 1870 the American Missionary Association was furnishing education to 21,840 pupils. Besides this it was doing a great work in other directions. Its teaching and missionary force numbered 3,161. The reports from the field secretaries in 1870 showed that the new public-school system was beating its way up to success against great opposition, although the disordered state of political and industrial affairs was largely responsible for the resistance. In several of the States, as in Virginia at Hampton, the legislature cooperated with the American Missionary Association by subsidies for their schools. From this time the Freedmen's Bureau withdrew its aid from the American Missionary Association. It had disbursed $213,000 for Southern education through this agency. One of the most vitalizing forces of this early work was the religious zeal and consecration which surrounded it with an atmosphere surcharged with power and love. The teachers all worked on what would be a pittance in the North, and assumed burdens in and out of school hours that, of themselves, would often appear to be a hardship in any well-organized community. They lived in crowded dormitories with their students, generally partaking of the inferior diet which, although often better than these scholars had ever known, was of a quality ill-adapted to their own health. They were always in reach of these children, who needed everything, and obliged to sustain a relation far more resembling a public reform institution than a school. The very nature of the work developed in all its superior workers an exaggerated and often a morbid sense of responsibility, which held them to their posts with the courage of a soldier on a perilous outpost, only to be vacated at the risk of disgrace and maintained at the great risk of collapse of health. Numbers of these excellent teachers laid down their lives in this work as certainly as the soldiers who fell in battle; indeed, comparatively few of them have ever been able to bear the strain of the work for a long succession of years. Of course they were not received in any proper social or even religious fellowship by the white people among whom they came to serve. Yet there were noble exceptions to this exclusiveness, and many a lifelong friendship dates from an acquaintance formed during these years of service in the Southland. It is probable that this phase of the situation was unconsciously exaggerated, especially by the women teachers. Their schools were generally established at a distance from the social center of the villages and cities in which they were situated. At that time there were few or no means of rapid transit, even in the larger towns. The teachers were generally overworked and unable to place themselves in the way of making acquaintances, perhaps sometimes, although very useful in their work, without the social interest or tact to make their way in this respect. The people whose social acquaintance would have been a pleasure were themselves, to a great extent, under a cloud, often of personal affliction, made doubly severe by the straitened circumstances that forbade the old-time social hospitality, and under the peculiar circumstances made it next to impossible to seek new friends among the teachers of their former emancipated slaves. The class most accessible, not only to the men but to the women, consisted of the public men, the physicians, superior teachers, and public-school officials, who were more frequently brought in contact with the mission schools, and from the first were glad to avail themselves of all the service in conventions, institutes, etc., which the newcomers had the strength and time to afford. It can truly be said that there was no considerable portion of the superior people of the South who ever showed any persistent and public hostility to this work.

The reports of the teachers, missionaries, and agents of the American Missionary Association in these years read like a perpetual romance, and in future years will be regarded by the historian, poet, and educator as most valuable material for the illustration of this period. This peculiar condition continued until as late as 1880. One hundred years hence the vast body of publication that grew up around these

schools will furnish the material for an important division of our new American literature. Especially will the historian of education, who at the beginning of the second century of the Republic seems to be just coming to a sense of his place in the national literature, find in these interesting records of the adoption and the rehabilitation of the former things the wondrous versatility of the American people, making the Republic itself the world's "nation of all work." The spectacle of more than five millions of slaves coming up from the darkness of centuries of pagan barbarism through the experience of two hundred and fifty years of chattel bondage into the possession of full citizenship in the world's chief republic was also a demonstration of the power of Christianity and the progress of humanity never to be left out of the history of mankind.

It may be noticed that by 1880 the American Missionary Association, which at the beginning had included a large constituency from the different evangelical Protestant denominations, had finally become a representative of the evangelical Congregational churches of the country. In 1881 a constitutional revision of the charter adjusted the association to its new position. The thirty-fifth annual report places its expenditure for educational work among white and colored children and youth at $186,398.97, and its entire expenditure for all purposes at $244,578.96. The State of Massachusetts had furnished $150,000 of this sum. In addition to this the association had received for education through State aid for colored schools and in various other ways large sums in money and supplies. Its educational outfit in 1880 was 8 chartered institutions of the higher education, under the titles of college, university, and institute; 111 high and normal, and 35 common schools; instructed by 230 teachers and missionaries.

In 1886, at the end of forty years of work, the association moved on a new line of work among the 2,000,000 of white people in the great central mountain world of the South. Out of this population had come two of the Presidents of the United States—Abraham Lincoln and Andrew Johnson. This class of the Southern people, by a large majority, was favorable to the Union during the civil war and furnished a most efficient section of the Army of the Southwest. But the masses of these people twenty years after the dawn of peace remained largely illiterate. From the center of operations at Berea College, Kentucky, with which the American Missionary Association had always maintained a friendly relation, a group of valuable schools has come up under the direct control of the association, into which an increasing number of the more ambitious and intelligent of the young mountain people have been gathered. Several of these seminaries are established in the new villages which have been developed by the extension through the vast, and to-day by far the most interesting, portion of the undeveloped country east of the Mississippi River, of the great railroad systems connecting the East and the West, and have proved themselves among the most notable agencies in the uplifting of the people of the entire district.

In 1888 the American Missionary Association was reenforced by the generous gift of $1,000,000 by Mr. Daniel Hand, an aged retired merchant, residing at Guilford, Conn. Mr. Hand was born in 1801, of good Puritan stock, and until the age of 18 worked on his father's farm in Connecticut. In 1818 he removed to Augusta, Ga., entering into business with his uncle, an old merchant of that city and Savannah. Daniel Hand succeeded to the house and, up to a few years before the breaking out of the civil war, was a leading member of the firm. Fifteen years before 1860 he admitted Mr. G. W. Williams, of South Carolina, to a business arrangement in which the partners had an equal interest. At the breaking out of hostilities Mr. Hand was at the head of the capital invested in Charleston. During the war he resided at Asheville, N. C., relying upon Mr. Williams in Charleston for the general charge of affairs. After a great deal of litigation, largely through the personal influence of his old partner he saved the house from

wreck. At the age of 88 he made this great bequest to the American Missionary Association. He wisely left to the directors of the association the manner of its expenditure, premising that only the income should be expended annually and suggesting that it should be used largely as a student aid fund of $100 a year for promising students.

With this reenforcement the association launched out in a wide expansion, so that it subsequently found itself involved in a debt that compelled immediate attention. The sinking fund of $100,000 was established and a policy of economy adopted.

At the jubilee meeting in 1896, held in Boston, the association was welcomed by the governor of the State and the mayor of the city, and the sermon was preached by Dr. Lyman Abbott, editor of the Outlook, successor of Rev. Henry Ward Beecher, of the Plymouth Church, Brooklyn, N. Y. The receipts of this year were $340,798.65 and the expenditures $311,223.35; the debt having decreased from $96,000 to $66,000. The income of the Hand fund was $68,830. This year was the fiftieth anniversary of the association. The will of Mr. Hand had left a large additional sum to the cause. From 1860 to 1893 the expenditures of the American Missionary Association in the South nearly reached the large sum of $11,610,000. In 1898 the association reported 6 chartered institutions, 44 normal and graded and 27 common schools, with 413 teachers and 12,348 students.

Of all the mission educational enterprises of the Northern Protestant evangelical churches, the American Missionary Association seems to have borne in mind most completely the idea of working in connection with the Southern States and people in the upbuilding of the common school for the colored race. It has, more than others, discouraged the mischievous habit of engrafting the old-time parochial school on the churches that have been developed by its missionary activity. In three of these States—Virginia, Mississippi, and Georgia—at different times its larger schools have been subsidized by the State in the interest of their normal and industrial departments. It has not shown the usual desire to retain its original authority or to utilize its bounty to acquire the perpetual educational control of its schools. Four of the most important schools of the higher order with which it has been connected and which have been liberally aided by it are now entirely separated from it—Howard, Washington, D. C.; Hampton, Virginia; Berea, Kentucky, and Atlanta University, Georgia. The explanation of this may be found in the fact, already stated, that although the American Missionary Association first united with several of the evangelical Protestant churches in its work among the colored people, each of these associations in turn has preferred to separate itself from others and organize on a more decided and exclusive denominational basis, looking to the church it represents for its support and guided by the sectarian policy thereof. This has left the American Missionary Association, like the A. B. C. F. M., virtually in charge for the evangelical Congregational Church. It was in New England, which for one hundred and fifty years of the colonial life was exclusively committed to this form of Congregational Church government, the only ecclesiastical polity that owes its origin to the Christian people of this Republic, that the people's common school was developed and alone sustained until the close of the war of independence. That original interest in and connection with the common school by the Congregational clergy and laity has never been lost by the members of this great and growing religious organization. It has not, like the three great remaining Evangelical Protestant churches, been ruptured by a sectional secession from the original body; as, previous to the close of the civil war there were, outside a few congregations in the border cities, no Congregational churches in the Southern States. Hence it has been called to encounter no sharp conflict with a rival church of its own household and has been left more exclusively to the radical work of preparing the colored race for a

superior form of religion through a general uplift of mental, moral, social, and industrial life, in which all the habits and the general spirit of society will become the most powerful teachers and the new citizenship of the race become at once a university and a church. There is nothing in the idea or the policy of the American Missionary Association that will forbid any or all of its present educational foundations, as new times and changed circumstances might demand, to retire amicably from its denomination control and become independent or even State institutions for the mental, moral, and industrial training of the class of students that has always been found under its benign and progressive influence.

In 1891 the American Missionary Association reported 8 schools of the higher and secondary type, 4 seminaries for the mountain whites in North Carolina, Kentucky, and Tennessee, 2 for Indians in Nebraska, and 93 other normal, industrial, graded, and primary schools. Its church work is almost entirely confined to the very poor among the Indians, and the lowland colored people of the South, with a growing interest for the people of the Southern mountains. Altogether there are 106 schools, with 15,252 pupils, and 242 churches, with 708 missionaries and 12,905 church members, the majority in the South. A bureau of woman's work is connected with the association.

THE FREEDMAN'S AID SOCIETY OF THE METHODIST EPISCOPAL CHURCH.

The first report of this society furnishes a complete account of its organization in 1866, the reasons for it, and its preliminary operations until May, 1868. It was established in response to a call, dated March 8, 1866, and signed by Bishop D. W. Clark, representing the board of bishops of the Methodist Episcopal Church. During the progress of the civil war the original work for the Freedmen in the North was carried on by a variety of Freedman's aid associations formed in Boston, New York, Philadelphia, Cincinnati, and Chicago during the years 1862–63. The first call was for the relief of the physical condition of the "contrabands," and it has already been related how this aid was dispensed largely through the agency of the Union Army, while supplies and money were forthcoming from these and private agencies. In 1864 the general conference of the Methodist Episcopal Church indorsed these additional methods of charitable aid. But as early as 1862–63 the call was made for additional effort in behalf of the mental and moral elevation of these people. Teachers were sent to the seaboard in 1862 and to the valley of the Mississippi in 1863. The physical needs of the Freedmen were so well supplied by the arrangements for their self-support on the vacated lands and in the Army, as soldiers and laborers, that after 1863 the chief need of assistance was for the maintenance of schools and teachers.

The beginning of this great work seemed at first to be an open door of invitation by Divine Providence for the long-desired and prayed-for, but slow in coming, union of the different divisions of the Protestant Church in some one grand and voluntary enterprise for the uplift of humanity. But it was soon found that here the churches were the first to break the bond. It was decided that the educational workers among the negroes should be members of the churches of the evangelical type of creed. This, of course, would leave outside the large majority of the American people whose "good will to man" was manifested by undenominational and practical labors and sacrifices, rather than through the regular channels of church work. First of all, the Friends, then the United Presbyterian Church, in 1863, inaugurated special denominational work among the freedmen. Later followed another division of the Presbyterian, and the United Brethren, and one type of the Baptists. In 1864 a committee was chosen by the old-school Presbyterian Church (North) for the subsidizing of a proper missionary work.

The Congregational Evangelical churches in 1865 reorganized the American

Missionary Association, that had existed since 1849, and reconsecrated it to this special work, and proposed to raise $250,000 per annum for this purpose. In the same year the Methodist Episcopal Church organized "The Freedman's Aid Society," and the Northern Baptists of the regular "persuasion" called for $100,000 as a fund for denominational work in the South. The five leading commissions already on the ground had fallen apart, the two in the West as a rule employing members of the evangelical churches as teachers, while the three in the East—Boston, New York, and Philadelphia—did not make church membership a necessary qualification for any position in the work. By 1866, despite vigorous efforts to combine these organizations in one free-school society, every teacher from the undenominational societies had been displaced and every Protestant religious sect save two had adopted special plans.

It was inevitable that these great ecclesiastical bodies should all, in time, come to see that the field of denominational missionary effort for the final evangelization of the 6,000,000 of the freedmen and the legitimate propagandism of their own churches was such as had never before been opened. In place of sending the missionaries of the cross beyond the sea to distant heathen or Mohammedan lands, all under foreign governments which were not always friendly to such enterprises, here was a new American citizenship of 6,000,000 of our own freedmen, just emerging from two hundred and fifty years of bondage, needing almost everything, with an ardent desire to "learn their letters," and receive aid and comfort of all kinds from the North and the nation to whom they were indebted for their new-found freedom.

The report of the Freedman's Aid Society referred to declares, however, that they were more anxious to have schools for the freedmen and their children than even to consider the founding of missions. This was very natural, since during the period of their former slavery the negroes had all nominally been converted from paganism to about as much of Christianity as was possible for a people in their condition of ignorance and dependence. Their new religious zeal, as usual, took the form of a direction to their own former denominational bodies, largely Baptist and Methodist, and often became a superstitious and fanatical caricature of the more enlightened denominational spirit of these great Christian sects.

The desire to preach was very pronounced among the leading class of the freedmen, and it was soon apparent that one of the first uses of their liberty was to be the formation of great religious denominational bodies which, under the old names, really were the beginning of a church organization founded upon and representing the then existing condition of religious and moral culture among these people. The white clergymen of the South, although often greatly honored for their zealous "labors of love" among the slave population, were generally dispensed with at this crisis in the new life of the race. It was therefore natural that all the Northern churches and clergy of the evangelical type should hasten to provide for the then vacant pulpits and buildings, and on the strength of such work as they had done before the war, and their patriotic services during the four years of the sectional conflict, endeavor to take the reins and direct the civilization of the rising race. In the words of the report, "The control of the educational work connected with missions was as necessary to success as the work itself, and this necessity, soon observed by every denomination that entered the inviting field presented by the South, was the chief care and guidance of denominational schools."

Of course, by this decision, the church abandoned the ground already taken by the northern American people, that the most effective and reliable moral agency for educating and training American children and youth was the undenominational common school. This conclusion had been slowly reached through the

experience and perpetual conflicts of the two hundred and fifty years since the passage of the original public-school statute by the Massachusetts Bay Colony in 1647. While a majority of the ecclesiastical organizations did favor the establishment of the American common school in the reconstructed States of the South, and the more advanced of them retired from the support of primary schooling for the negroes as fast as it was supplied by the States and communities where they labored, and made it a permanent feature of their policy to train teachers for all grades of these schools, the schools of the Methodist Episcopal Church were, at first, as far as possible, connected with churches. In 1868 the majority of the school teachers were the missionary workers, the same buildings being used for the school houses and churches, and the administration of the entire enterprise was so interlocked that it would be impossible to separate in any way the exclusively educational plant.

But the inevitable tendency of American thought and action in respect to universal education planted every Southern State, by 1870, on the American policy of an unsectarian common school, and, outside a few Southern communities, the attempt to subsidize denominational schools in these States has not been a success. In obedience to this condition of affairs and urged by the impossibility of educating 6,000,000 people, all in 1866 practically illiterate, by Northern Christian charity, all these great mission schools, like the denominational colleges and academies of the North, have modified their sectarian character, and to some extent conformed to the policy of similar institutions of learning in the new South. Still, in testing this plan of school education among the negroes, it should always be understood that the only just and correct point of view is the whole field and its necessities as surveyed and organized by the larger Protestant Christian sects, and that the educational was always subordinate and tributary to the need of the religious uplift and moral reformation of these people.

It is not strictly in line with the purpose of this essay to give an elaborate record of the doings and results of this great missionary movement in the South for the past thirty-five years. As a feeder to the common-school system, on which the race must more and more rely for the training of its children and youth for reliable manhood and womanhood and good American citizenship, it has maintained, and must for a considerable period to come continue to maintain, a vital and necessary connection with the founding of the American common school. It will be observed that, more and more, its academical and normal schools are conforming to the methods of instruction and discipline and especially of industrial training that are best known under the general title of "The new education." Still, the fundamental purpose of all these great and useful bodies is the same as that of the churches by which they are supported and also mainly relied on to shape their policy, and whose teachers are chiefly found in all important positions in their school work.

It is not necessary that the most earnest advocate of the American common school in all its departments should look with disfavor or in any spirit of hostile criticism on any of these great schools, which are regarded by their workers in conformity to popular nomenclature as "Christian" instead of "secular." The great work of the moral and spiritual uplift of mankind is the radical motive of these schools, as of the Christian churches, and much as we may deplore the inevitable results of these sectarian divisions and the hindrance to educational development by the contentions and rivalries of the denominational system of schooling in general, there was never a better work done by any people in any land than has been achieved by the results of forty years of missionary and educational activity in the type of schools now under consideration, and there has been no expenditure of time, money, and effort for the general uplifting of God's "little ones" that has resulted in more benefit than has been achieved by the disbursement of more

than $50,000,000 through the schools and churches in the social and industrial improvement of the colored and white people of the humbler class in 16 States.

The churches of the Methodist Episcopal body of the North responded to the original appeal with remarkable promptitude, although the country was in the agonies of one its periodical spasms of "financial depression." In the seventeen months ending March 31, 1868, $58,477.69 ($54,231.73 in cash) was collected, of which $35,815.83 was expended in field work in 9 States. There were 59 schools with 124 teachers, and, in 1868, 7,000 pupils. Only half the teachers drew full support from the territory and the remainder cost $10 per month. A large number of the teachers were ministers of the gospel who labored both in church and school, and all the teachers served in the Sunday as well as the day schools. The general outcome of the work could not be better described than in the words of the superintendent:

Our schools have rendered essential aid in the work of restoring social order; in bringing about friendly relations between the employers and laborers; in promoting habits of cleanliness, industry, economy, purity, and morality; rendering more emphatic the grand distinctions between right and wrong, falsehood and truth; enforcing fidelity to contracts; portraying the terrible consequences of intemperance, licentiousness, profanity, lying, and stealing; teaching them to respect the rights of others while they are prompt to claim protection for themselves. The teachers have furnished for the freedmen a vast amount of valuable information in regard to the practical matters of life which could be obtained nowhere else. The schools have met a great want which no military or political organization could supply, and without which it will be impossible for peace and harmony to be restored. Our teachers have been pioneers in the work of reconciliation, and are laying a foundation upon which the most enduring superstructure can be reared.

In fact the only fair and appropriate way of estimating this peculiar combination of church, school, and home in the Southern educational work during the past generation among the negroes is to regard it as a vast university of all work; a continental training in the new American civilization to which the younger generation of the freedmen had been so wonderfully summoned. Like the lyceum of the old and the Chautauqua assembly and summer school of the later times, it was a characteristic development of our American educational life, as sincere and praiseworthy in motive, in social and religious as in industrial and political affairs. As the years go on and the educators of the colored race come to a full recognition of their opportunities and obligations in respect to this class of pupils, much of what was an imperative necessity in the first generation will be dropped and the more important of these seminaries will become the permanent academical, industrial, and collegiate foundations for the increasing numbers of this race. And then it may be seen that the apparent presumption of naming a school of 500 boys and girls in the elements of useful knowledge, the first generation of their people ever gathered in a schoolroom, a "college" or "university," has been justified by giving to the country half a century later a class of institutions of the higher education in the best sense, seminaries of the higher Christian civilization, "universities" more in accordance with the grand ideal of John Milton than are yet to be found in any of the great educational institutions of to-day.

The report for 1868, from which these facts are drawn, was accepted with marked favor by the general conference of the Methodist Episcopal Church for that year, and from that day to the present the Freedman's Aid Society has gone steadily forward along the high road to success. The conference took a wide and practical view of its duties in the situation. In its announcement it says: "When the Southern States are fully reconstructed and a wise common-school system is established, and a returning prosperity shall enable the maintenance of free schools, the work of this society may possibly be superseded. Already the society reports the establishment of three normal schools at Nashville, Tenn., Huntsville,

Ala., and Columbia, S. C." These early normal schools were as yet rather academies, where the superior young colored people received the schooling necessary for a teacher's work, with but little of what is regarded the professional training now everywhere demanded in the teachers of the people's schools. The necessity of help for teachers and preachers is noted in the report. Arrangements were made for the employment and assistance of Dr. Rust, of Cincinnati, Ohio, as corresponding secretary, whose services during many years were so valuable over the entire field of Southern educational work; also Rev. J. M. Walden, afterwards most widely known as the chief traveling bishop of his church, was assigned to this work.

Another decade passes, and in 1878 the eleventh annual report of the Freedman's Aid Society opens a view over a wider field with greater results. The Methodist Episcopal Church has now 28 conferences in the South, 14 largely of white and 14 principally of colored members.

These 28 conferences already contained 396,000 members, although the Methodist Church South and several great organizations of colored Methodists were working in the same field. In this territory there were 6,326 traveling and local preachers, of whom 3,365 were colored. There were 4,381 Sunday schools, with 240,671 scholars, of which 2,022 schools and 96,474 scholars were colored. The church property developed by this ten years' work was valued at $8,732,716, of which $1,868,503 was in use by the colored members. Already this great school missionary effort by the different churches of the North had borne abundant fruit. The negroes themselves had not been deficient in zeal, and report 448,000 members of the African Zion and Colored Methodist Episcopal churches of America. One of the shadows cast by the denominational "pairing off" of Northern Christians into church missionary associations was the development of the sectarian spirit in the negro race, while the church parochial school, adopted as a necessary expedient in the early stages of educational work, was now, after a generation, found often to be a positive and obstructive hindrance to the building up of the effective system of common-school instruction, which always must be the agency of civilization to the negro race.

The school work of the Freedman's Aid Society had not lingered behind the church enterprise. Five chartered institutions, with three denominational theological schools, two medical colleges, and ten seminaries of the academical grade were reported, with an attendance of 2,040 students, 1,000 of whom were classed as normal, in 11 States. It was estimated that 64 per cent of the colored people of school age were abiding in the darkness of ignorance. "Of the 5,000,000 colored people of the country—one-third, perhaps, seem to have risen to a higher degree of comfort and a higher phase of life—one-third have sunk down to a lower plane, and one-third are left the victims of circumstances." The report brings to notice the vast field of Christian work open to women in the reformation of the family. "The great opportunity for the women of America is presented in this work, which God has placed at our door." In two of the schools a medical education can be obtained. The financial side of the society gives the least favorable account of itself, reporting $63,402.85 expended in 1878—only $3,000 more than ten years before. In the eleven years of its operation the Freedman's Aid Society had disbursed $715,852.40; 100,000 pupils had been taught by teachers educated in the schools of the society. For reasons not explained the public-school attendance had fallen off in 6 of the Southern States during the year. Even in Kentucky not half the school population had ever been enrolled in the common school. There was still a great field of labor awaiting the fit workers in the building for the children of the South.

In 1880 the writer of this essay began the first of a series of annual visitations among the schools of all sorts in all the Southern States that has continued under

the name of "a ministry of education" until the present day. In the Clark University, Atlanta, Ga., founded by Bishop Gilbert Haven, he found the most successful attempt to introduce industrial training in the mechanical and domestic arts outside the Hampton Institute. This feature has since been developed in the schools of the Freedman's Aid Society to a remarkable degree. On the same college campus as Clark University we now find the Gammon Theological Seminary, the most important of this class in the South, endowed and with belongings even superior to the average of "divinity schools" in the North.

Another decade has passed and the report of 1888 reveals a steady progress. "One theological school, 12 institutions of college grade, 2 medical, 6 normal, 3 legal, and 12 with industrial departments, with 28 academies, have been supported and aided. In these 41 centers of intellectual and moral power 328 teachers have faithfully done their work and 7,682 different students have been instructed, an increase of 10 institutions, 40 teachers, and 715 students over the preceding year." The race question is practically settled on the American policy of "local option." (1) "One society and administration for all people and conferences. (2) Schools among colored and white people, to be so located as to best serve the interests of the conferences to be benefited. (3) There is to be no exclusion on account of race, color, or 'previous condition.' Supervision in schools, as in conferences, is to be by the choice of the people themselves." It is noted that while the attempt to employ the educated class of the colored race as teachers in the mission schools "has resulted only in a partial success in a few fields," the general field open to the colored graduate has been greatly enlarged by the Freedman's Aid Society. During the year a new chapel has been built at Clark, and 8 schools have been designated as centers where college studies could be pursued. The Gammon Theological School has been declared the center of this department, with arrangements for practical theological training, while the 12 academies are restricted to the sections nearest them. Four colored schools, admitting white pupils, were also undertaken. Different courses of study were arranged for every class of schools. In all these institutions there were 4,048 in the collegiate, 269 in the theological, 66 in the medical, 67 in the legal, 1,455 in the industrial, and 3,569 in the academical departments. The teachers in the "collegiate centers" make reports to the superintendents of the pupils pursuing college studies. The society was already in debt $132,619.41, largely due to the purchase of lands and "building." The managers plead for an annual income of $280,000, of which the schools were expected to pay in tuition and rent $48,179. According to an estimate of the society, the population of the 16 slave States was estimated at 12,784,612. Of these 4,715,381, 10 years of age and over, were illiterate, 3,042,435 of the colored race. In the conference of the Methodist Episcopal Church in the South there were 447,016 members, of whom 226,833 were colored. There were 7,326 preachers, teachers, and workers employed. These people were gathered in 48 conferences, 32 consisting of colored and 16 containing only white people.

In the central mountain regions of the South, where the white people were generally loyal during the war, the Methodist Episcopal Church, in 1890, had 100,000 members, organized in 7 conferences. One hundred and fifty thousand volunteers went into the United States Army from that territory. The negro population in this region was very small. There were then 100 Grand Army posts in this region and the U. S. Grant University at Chattanooga was in effective operation. Largely by donations from the Slater fund, under the management of Dr. Atticus G. Haygood, the industrial work in the schools had greatly increased. The society seemed to be fully alive to this important annex to its educational forces. The Woman's Home Missionary Society was founding schools of domestic economy in five of the larger institutions, and the local missionary work had been greatly aided by the establishment of a missionary home located among the people, to be

the residence of the woman missionary and the model for the imitation of the well-to-do colored people. One of these college centers, Claflin University, at Orangeburg, S. C., one of the largest of the schools for colored youth in the South, was for several years a department of the University of South Carolina, under the direction of the same board of trustees as the old college of South Carolina and the military school at Charleston for white youth.

It is unnecessary to continue the record of the great work of the Freedman's Aid Society, the deeply interesting details of which have been written in the annual reports and a bimonthly publication devoted to this work of the association. The Methodist organization, discipline, and instruction in its mission schools are essentially the same as developed in the American Missionary Association. They do not vary in all these denominational schools, save in the polity, and, in some respects, the type of the membership. Few churches have done more of the proper personal school work than the Methodist Episcopal. During the first thirty years of its existence the Freedman's Aid Society expended more than $6,000,000. Its chief school of the university type continues to be Wilberforce University, in Xenia, Ohio, established in 1857. The 65 institutions supported by all branches of the Methodist Church for colored students, as late as 1895, included 388 teachers, 10,100 students, $1,905,150 property, and $650,500 expended in administration. Dr. Hartzell, one of the ablest and most effective workers in the educational affairs of the society, has recently been elected to the office of bishop, and is now established in Africa.

The great development of the Methodist Episcopal Church in its educational policy is one of the notable features of the history of education in the United States during the past thirty years. The Chautauqua Assembly, established thirty years ago by the present Bishop Vincent, a native of Alabama, is one of the most characteristic and triumphant developments of American genius for all educational work. The new American University at Washington, D. C., will fitly crown this half century of effort.

In 1901 the Freedman's Aid Society reports: "From its humble beginning of more than a quarter of a century since, when there was only one teacher, with a borrowed capital of $800, it has to-day 47 institutions of Christian learning, about equally divided between the negroes and the poor whites, in all the former slave States, with lands and buildings worth $2,165,000." It is able to declare: "During all these years not a single student or graduate has ever been charged with crimes against virtue." The reports from the schools were most encouraging. The attendance was the largest since the financial panic of 1892–93 and the number of graduates the largest in the history of the society. It is encouraging to note that special stress is placed on the normal department and English branches. "Our aim has been not only to secure good English scholars, as opposed to Latin and Greek scribblers who can not speak their mother tongue, but especially to prepare well-trained teachers." It boasts that it has more teachers in the public schools of the South than any other benevolent institution doing work in that section. After a temporary interruption, caused by the financial panic, the society had taken up its industrial work with new vigor, and asserts: "We have more industrial students, teach more industrial pursuits, and have more graduates than any institution or set of institutions in the South. The total number of students in all the industrial schools the present year is 2,906." The society appropriates $90,625 annually; $79,975 to colored pupils, for 1 theological school, 2 medical schools, 10 institutions with the title of college or university, and 10 academies, with 3 universities and 22 academies for white students. It expended for colored schools during the year 1900, $171,773.01; for white schools, $47,815.66; total, $219,588.67, besides a miscellaneous expenditure of $136,216.79; its total receipts having been $355,805.46. It still has an indebtedness of $154,891.34. The presi-

dent of the society is Bishop J. M. Walden, who, with Vice-President R. M. Rust, D. D., and W. P. Thirkeld, corresponding secretary, have been for many years, with Bishop Hartzell, among the best known and most intelligent workers in the Southern educational field.

THE PRESBYTERIAN CHURCH (NORTH) IN CONNECTION WITH THE SCHOOLING OF THE FREEDMEN.

The northern Christian denominational organizations which, at the close of the civil war, undertook work of education among the freedmen of the South, may be divided into two distinct divisions. The first includes the American Missionary Association, representing the Congregational; the Freedman's Aid Society, established by the Methodist Episcopal, and the educational organization through which the Baptist churches operated. Although these were missionary enterprises largely engaged in denominational propagandism, including the establishment of churches, yet in their educational work, which produced great independent and State institutions, of which Hampton, Va., and Tuskegee, Ala., are conspicuous examples, they put themselves at once into the most vital and sympathetic relations with the new common-school system for the colored race of every Southern State. And although for a period they somewhat failed to appreciate the importance of the normal and industrial training absolutely essential to the success of the colored teacher, yet they did furnish for ten years and more a large majority of the teachers for the more important free colored schools in these States. This tendency, despite a persistent ecclesiastical opposition in the management, is now so confirmed that these three great denominations, beyond comparison, retain their leadership in the Southern educational work and are to-day supplying probably the larger number of competent instructors, not only in the public schools, but in the State normal and industrial colleges throughout the South.

Another division of these religious bodies, like the Presbyterian, Protestant Episcopal, the Friends, and several of the smaller sects, adopted at first the same policy as the Catholic Church, not only making their mission schools for both races thoroughly sectarian, but inclined to favor what is called the parochial system of schooling all the way up from the primary school connected with the church to the university.

It was doubtless from the fact that these churches proposed to themselves this persistence in the old European method of education that their success in collecting funds for establishing schools has never been commensurate with their wealth and general importance as religious bodies in this country. The church school of every degree has its uses everywhere, especially in the secondary academical and higher collegiate and university departments. But the educator or churchman, however zealous and consecrated, who proposes the planting of a little parochial-school annex by the side of every colored church, to the exclusion of public schools, must be prepared for the indefinite postponement of even the elementary instruction and discipline of the vast majority of the more than 2,000,000 negroes under the age of 20 years. After thirty years of prodigious effort by the Southern people themselves, aided by great missionary effort from the North, more than 50 per cent of the colored people of the South to-day above the age of 10 can neither read the Bible nor write their own name in a business transaction. The only way out of the inevitable disturbance from such a condition of affairs is the hearty union of the whole people, even better if aided by some practical scheme of national aid, to lift up at least one-third the population of these 16 States, of both races, into line with the American life of the present.

Among the Protestant churches that adopted the parochial school system was the Presbyterian Church, North. As early as 1865 this church had put forth "a

declaration in favor of special efforts in behalf of the lately emancipated African race." Six years later (1871), in the first annual report of the "Presbyterian Committee of Missions for Freedmen," we read that the first five years' work in 1870 had resulted in a financial indebtedness of $17,789.15, besides an additional burden of $3,400 for real estate furnished. In preparing the schedule of school work for the year 1871, the committee "reduced it, with but three exceptions, to that which is strictly parochial, dropping with their teachers such schools as had no denominational church connections," with a view to scale the debt. They report $70,934 as the value of church property. There were 67 churches, upon 6 of which there was an incumbrance of $5,933. There were 6,220 scholars in the Sabbath schools.

In the year 1871 the entire number of schools was 45, with 58 teachers and 4,530 pupils. Biddle Memorial Institute, at Charlotte, N. C., a theological and normal school; Wallingford Academy, at Charleston, S. C., with 300 pupils; the Normal School at Winchester, Va., with 95, and Scotia Seminary, for colored girls, at Concord, N. C., with 45 pupils, were all the institutions that were supported outside the parochial schools. Complaint is made that the churches do not come to the help of the association, as was earnestly hoped they would, and the general assembly of the year 1871 at Chicago, "regrets to find that the work among the freedmen has not been sustained in a manner at all commensurate with its importance."

In 1872 the expenditures amounted to $65,802.95. The churches still held back, and the debt was not wholly paid. The number of pupils in the schools had diminished by 1,000 since 1871.

At the Scotia Seminary, for colored girls, at Concord, N. C., industrial training, needlework, and domestic economy were pronounced features. Biddle Institute, at Charlotte, N. C., in 1872 had some 14 Presbyterian churches in charge, was situated amid 8 acres of well-cultivated grounds, the property valued at $13,000, and had an able corps of teachers for its 100 students. In 1872 the Presbyterian General Assembly approved the work done and the call for $90,000.

In 1876 the debt was finally paid. The high schools had been opened, the Chester, S. C., Brainerd School had increased to 231 pupils, and an enterprising colored preacher had collected $4,359 in scattered places for the work. The parochial type of the school keeping was still maintained. The most interesting of the new schools, in 1878, was located at Midway, Liberty County, Ga. Liberty County was first settled by a colony from Dorchester, Mass., which, after a long residence at Summerville, S. C., removed to the seacoast of St. John's Parish, below Savannah, some time before the war of the Revolution. They established there a famous academy and a Congregational church. At the breaking out of the Revolution the county distinguished itself by sending a local delegate, Mr. Lyman Hall, afterwards first governor of Georgia, to the Continental Congress in place of a Territorial delegate, and received its name, on the organization of the State, in honor of its patriotism. For many years it remained one of the foremost of the educational centers of the State and flourished under its religious organization. The close of the civil war found the county almost depopulated of its white people. In 1898 the report of the school authorities informs us that "the freedmen of this county, in mind, manners, and morals, are evidently superior to this race in general," a result attributed largely to their training in the district Sunday schools by their former masters and mistresses.

By 1880 the number of scholars in the Presbyterian schools had somewhat increased, and the expenditure was $72,000. In 1881 it is noted that the negro population had largely increased since the war, the gain being 38 per cent; the white folk increasing only 34 per cent, while 22 per cent had been the average of colored increase during the last two decades of slavery. The colored population

of the South in 1881 was estimated at 6,577,151. The management urges the churches to labor with more fervor in the work, and points to the reports of other denominations as a stimulus to greater efforts. The school at Charleston, S. C., had organized a distinct department of industrial education, with an attendance of 100 pupils. There were 1,527 students in the 5 superior schools.

In 1883 the general assembly of the Presbyterian Church, North, authorized the incorporation of "The Presbyterian Board of Missions for Freedmen of the Presbyterian Church in the United States of America." The annual income of the board had risen to $108,120.85. The number of schools had increased to 65, with 6,995 pupils and 129 teachers; all the schools "strictly parochial." In 52 parochial schools there were 8,370 pupils, and 10,771 gathered in 158 Sabbath schools in 173 churches with a membership of 12,883. The board urges the fact that 76 per cent of the freedmen in the South are still illiterate, besides 1,000,000 voters, of whom 69 per cent could neither read their ballots nor write their names. In South Carolina, Louisiana, and Mississippi the colored population was far in excess of the white. In 1885 a freedman's department of the woman's executive committee of home missions was organized. In 1896 the work had been extended to the treaty tribes of the Indians.

Ten years later, 1896–97, we find the work of this church for the Southern freedmen but little advanced. A debt had been permitted to accumulate, and the reports speak of schools suspended or cut down in their appropriations. The number of superior schools had increased to 6, the fine buildings of one, the Barber Memorial, at Anniston, Ala., having recently been destroyed by fire. The day schools numbered 67, with 204 teachers and 9,442 pupils. The school term of 13 of the 17 leading schools had been reduced one month; 12 in session only six months each; the parochial schools, maintained at the expense of the board, in session only four months in the year. The office of the treasurer was consolidated with that of the field secretary. The general receipts declined to a lower figure in 1897 than in the previous eight years. During the twenty-seven years of the existence of the board $1,000,287 had been expended. A theological school for negro students had been opened in Alabama.

It is not easy to understand why the powerful and wealthy Presbyterian Church of the Northern States has fallen so far behind the Congregational and Methodist bodies in the support of its schools for the freedmen. It will be remembered that at an early date this religious sect had formed the backbone of the educational work for the white people of the Southern States, and has always been distinguished for the cultivation, ability, and Christian zeal of its ministry. Perhaps an explanation will be found in the fact that in this church the central purpose of training teachers for the common schools of the colored people of the South has been almost ignored, there being only five schools of this sort, none of them of the first class in numbers and importance, engaged in this work. Their day schools have been "strictly parochial," and, of course, out of touch with the general work of the American common school. The financial depression of several years previous to 1897 told on all these missionary school agencies, and those that were exclusively ecclesiastical were the first to suffer.

THE PROTESTANT EPISCOPAL CHURCH IN THE EDUCATION OF THE COLORED RACE.

Prior to the establishment of the commission for the education of the colored race in the Protestant Episcopal Church the records of church work among this people in the different dioceses were not kept separately. In 1866 the sum of $24,728 was expended in this work; in 1867, $28,209; but in 1879 the support had fallen to $8,519. In 1886 the sum total rose to $18,423. In that year the commission for the colored race was established at the general convention of the church

in Chicago. At first it consisted of a board of 15 managers—5 bishops, 5 presbyters, and 5 laymen—the entire work in each diocese in charge of the bishop. In 1892 the membership of the commission was increased to 21—7 from each order—and all bishops were entitled to attend its meetings. In 1895 the number was again reduced to 15. The chairman of the commission is Right Rev. F. W. Dudley, D. D., bishop of the diocese of Kentucky, whose zeal and wisdom, as shown in his contributions to the literature of this work among the colored folk, are well established.

The work of the commission is entirely under ecclesiastical control. It declares that "our chief need in dealing with the education of the negro race is to provide educated and consecrated ministers fully alive to the conditions and wants of their bretheren, and anxious to labor with earnestness and devotion to dispel their prevailing ignorance and lift them to a higher plane of Christian intelligence and life." For this reason the work of the Christian commission is to so great an extent mingled with the general work of the church that it can not fairly be treated as separated therefrom. Of the five chief institutions that have been established since 1865, viz, in Raleigh, N. C.; Nashville, Tenn.; Washington, D. C.; Lawrenceville and Petersburg, Va., only two—St. Augustine, Raleigh, and St. Paul, Lawrenceville—cover the usual type of normal and industrial schools. These are evidently of the better class of their kind, containing in 1900 some 500 pupils and 23 teachers. The three theological schools have 32 students in preparation for the ministry.

During the twenty years from 1866 to 1886 the Protestant Episcopal Church expended $351,514 in the entire church and school work among the negroes, and in the ten years from 1886 to 1896 the larger sum of $441,494, the total for thirty years being $793,008. The sum expended in 1895–96 was $56,880, and in 1896–97 $57,920. In the latter year the salary and office of general agent were abolished.

The schools supported by the commission are all, with the exception of the five before named, of the parochial type of this church. In the fifteen old slave States and District of Columbia, with a negro population of 8,000,000, these schools had in 1896 an average attendance of 4,346. There were 61 colored churches in the Southern dioceses and more than 60 white clergymen in the South actually interested in the colored work.

While the work among the vast colored population of the South by this church is perhaps more limited than that of the other leading Protestant churches, and only indirectly can it be said to affect the common school interest of the different States, it has yet, in one respect, a decided advantage above that of some of the churches that are doing more and are in nearer touch with the great central feature of popular education. The Protestant Episcopal Church, although divided during the period of the civil war, made haste on the advent of peace to close up its ranks and has wrought with great zeal and remarkable success as a united combination in every part of the Union. It concentrates its energies, to the great advantage of all the Southern churches of the body, in the work already described. Its bishops in all the fifteen former slave States and the District of Columbia are, in fact, the supervisors of the work of their own dioceses, and four of the five bishops, four of the five presbyters, and four of the five laity who compose the general commission are from the Southern States. The later organism, by which all the bishops are included as a sort of advisory committee in this commission, testifies to a growing interest in this important mission. The Spirit of Missions has given a large portion of its space to the subject, and the discussions of the foremost clergy and laity are every year more decided in regard to an increasing zeal in the cause of the colored people. The two normal and industrial and probably an increasing number of the parochial schools are every year more and more conforming to the

type of normal and industrial tuition represented by Hampton, Tuskegee, and the State institutions already described. In all ways it would seem that this church is in some respects more fully prepared than all others, save the Catholic and Congregational bodies, to concentrate its mind and treasure upon this point of missionary work as the years go on.

THE SOCIETY OF FRIENDS IN THE EDUCATION OF THE COLORED PEOPLE OF THE SOUTH.

The record of the relation of the religious denomination of the Friends, or Quakers, to the institution of slavery is one of the most suggestive chapters of the educational history of the British Empire and its colonies in America. From the days of George Fox, the founder of the sect, its protest against negro slavery at home and in the colonies became stronger with every year. There were exceptions to the general sentiment of the body, and Friends at different periods became slaveholders; but as far as possible under the conditions, especially in view of the severe laws against the emancipation of slaves in Virginia and North Carolina, the two States of the South in which the greater number of the Friends lived, the protest may be said to have fairly represented the public sentiment of the body. Under discouraging circumstances, in many ways in the North and South they kept alive the agitation which, begun in a state of peace, finally kindled the flames of a civil war which ended in the complete emancipation of the enslaved race.

It is asserted that the first important demonstration in the United States to bring before the public the duty and policy of immediate and unconditional emancipation was by Charles Lundy, who was born in North Carolina in 1775 and died in 1850. He removed to Tennessee in 1806. In 1814 he assisted in the organization of a numerous antislavery society and spent several years in this work. In 1817 he removed to Ohio and published the Philanthropist. He gave up the use of all slave-grown produce and in 1842–43 worked with the antislavery forces in Indiana. His effort in the advocacy of unconditional and immediate emancipation preceded that of William Lloyd Garrison in the North. In 1821 Lundy removed from Ohio to Tennessee and for three years published the Genius of Universal Emancipation, the paper afterwards being removed to Baltimore.

The result of these efforts was to strengthen the hands of the majority of the sect of the Friends who in Virginia and Maryland and through the South had steadily labored against the "peculiar institution." Besides emancipating their own slaves they had persuaded others to "go and do likewise," and several thousand negroes were sent through their aid to the North, although some of the Western States framed laws forbidding their reception.

But the most decisive result of this opposition to slavery was seen in the emigration of large numbers of the Friends from all the States of the South Atlantic to the new land of freedom in the Northwest. Begun in 1769 in Virginia, the movement was accelerated by the opening of the West, through the settlement at Marietta, Ohio, in 1788. As the years went on and the protests of the yearly meetings of the sect became of less effect, and even numbers of their people were still found among the slaveholders, the scattering departure of Friends changed to their migration by groups and in some cases of the entire membership of a yearly meeting. The tables compiled by Dr. S. B. Weeks, formerly of the U. S. Bureau of Education, in his exhaustive treatise on The Southern Quakers and Slavery, give the names of 2,178 persons, representing 1,000 families, who were recorded by the yearly meetings as "going West" from 1801 to 1860.

The majority of these people found their new home in Ohio and Indiana, and several of the most substantial counties in these States bear witness to the excel-

lent quality of this population, Wayne County, Ind., with Richmond as its county town, being a representative region of this description. Indeed, it is estimated that in 1850 one-third of its population was composed of white Carolinians and their children of the first generation. Although not all or probably the majority of Quaker ancestry, yet this denomination of Christians so largely represents the wealth, worth, and intelligence of many of these counties that their presence was not only a powerful influence against the growing power of slavery in the Union, but an encouragement of the immigration of large numbers of the nonslaveholding poorer class of Southern whites, for whom life in their native States had little of hope for themselves or their children. No class of immigrants to the West during the progress of the years has given a better account of itself in the development of distinguished characters than the southern Friends. Besides numerous eminent persons in public and professional life, many a prosperous community of the old East beyond the great central mountains has been indebted to them for leadership.

From an early period the question of the education of their children came to the front with increasing interest. In 1833 the celebrated Friends' Boarding School in Guilford County, N. C., was chartered. It was coeducational and received only the children of Friends, but its superiority broke down this limit and in 1865 70 per cent of the pupils were from families who sent their children on account of the merits of the institution. It opened in 1837 with 25 boys and 25 girls. In 1850 there were 94 and in 1858, 139, of whom only 60 were Quakers. In 1860 it found itself burdened with a debt of $29,000, which the yearly meeting was unable to provide for. During the civil war it was conducted as a private school and came out intact in 1865. The influence of such an institution in a county so small could not be otherwise than great. In 1851 there were 854 Quaker churches in North Carolina and 1,038 young people were taught in 130 schools, all coeducational. Of 1,853 children only 8 over the age of 5 were out of school. In 1855, of 1,060 children between 5 and 21, none over 5 were growing up in ignorance.

At the close of the civil war the migration of the Friends broke forth with new energy. Between 1866 and 1872 10,000 people left North Carolina alone, among whom were many Quakers. An effort was made, responding to a request from high quarters, to prevent this wholesale departure of a people so reliable. The Baltimore Association of Friends, to assist and advise Friends in the Southern States, was organized in 1865. Large supplies of provisions were sent and some of the people were persuaded to return and others to remain in the old home. The president of the association made 35 journeys to North Carolina and labored with great zeal in prosecuting this work. The denominational schools were rehabilitated and in 1866 reported 160 students. A normal school for training teachers, the first in the State, was kept up for several months and the teachers thus instructed were in great demand. In 1866 $22,534.51 was expended. In 1865 the Friends in North Carolina had been left destitute of schools. A superintendent was sent from Indiana, who labored for three years, followed by a second from that State for eight years. In 1866 30 schools had been reestablished, which received aid from the Baltimore association. In 1868 the number had increased to 40, with 2,588 pupils; 1,430 being children of Friends—the schools in session six and one-half months in the year. In 1871 the number remained the same. In central North Carolina the movement was hailed as "one of the most favorable evidences of reconstruction." In 1867 a normal school for the training of Sunday-school teachers was organized.

This movement eventually extended to the schools for the freedmen. In 1867 the committee of management reported 6 day and 22 Sunday schools, with 1,600 to

2,000 colored children in attendance. In 1869 24 day and 35 Sunday schools contained 1,707 pupils. Dr. J. M. Tomlinson, brother of one of the most successful of the group of able superintendents of the new graded schools of North Carolina, was appointed superintendent of these colored schools in 1869. In 1871 there were 800 pupils in 16 schools, educated at an outlay of $1,308.61. After this the movement for the colored schools seems to have declined. The excellent character of the Quaker schools, always the most pronounced of all the Protestant sects in respect to parochial education, doubtless told against the rapid development of the common school for the negroes. Indeed, for a long time in all the Southern States the movement for popular education for white as for colored children was confined to the country and village district school, leaving the more ambitious of the colored students to find their opportunity for the secondary and higher schooling in the different institutions established largely and supported by the Northern churches, the majority of which, if they did not assume the name "college" or "university," contained a class in high-school and college studies. A positive addition to the facilities for the advancement of the negroes was a model farm, provided in 1867 in Guilford County, named after Swarthmore College, Pennsylvania. A great interest in improved agriculture was awakened thereby, and it was declared that the influence of this movement extended so widely that 15,000 acres of land had been put into cultivation from this experiment.

In 1872 the schools were placed under the general charge of the "Yearly Meeting." There were 32 schools, with 62 teachers and 2,358 pupils, and not a child of Quaker parentage in North Carolina or Tennessee had been overlooked. In 1880 it was said that probably no child of this sect between the ages of 7 and 21 in North Carolina was unable to read and write. The moneys sent to North Carolina during the eleven years of this movement exceeded $138,300, $130,000 of which was for schools. Guilford College, to which many of these schools were tributary, received the gift of a new normal building.

The Pennsylvania Friends engaged in the work for the freedmen in 1869 reported 29 day schools, 40 teachers, and 2,000 pupils schooled at an expense of $6,000. The Friends of New York by 1874 had invested $18,000 in schools for white and colored pupils, and established a seminary of the higher education later in North Carolina. The New England Yearly Meeting has a college for colored girls at Maryville, Tenn., and the Indiana Yearly Meeting one in another location. The first class of Guilford College was graduated in 1889. At present it ranks as one of the most prosperous in the State. In 1895 the Friends of North Carolina report 6 academies, taught eight months in the year, with an attendance of 530, at the cost of $1,776.25, with 14 schools, all preparatory for Guilford College. At the last report there were some 6,000 in the schools in North Carolina alone. In Tennessee, Florida, Arkansas, Louisiana, and Texas there are also the traces of the persistent educational work of this body. In respect to all classes of her people North Carolina has been a great center of educational life, as from her have gone forth some of the most important leaders of education in several of the Western and Southwestern States.

Since the dissolution of the Baltimore association there seems to have been no general working arrangement of this sect for the support of their schools, although the effort has not closed, and probably funds to some extent have been collected. The Pennsylvania Friends still contribute to two of the best seminaries of the secondary, higher, and industrial training among the negroes. The work of Miss Martha Schofield in her normal and industrial school at Aiken, S. C., is well known. This is one of the most successful of all institutions of the sort in the South. At one time it was accepted by the public school authorities of the city, a noted place of winter resort, for the schooling of all the children of the colored race. This school was established in 1868 under the auspices of the Friends, and

for twelve years it remained a day school. In 1882 it was rebuilt and reorganized, and has now a large attendance. Its classes in printing and other departments of industrial training are recognized as of the most encouraging character. A flourishing school at Charleston, S. C., is also dependent on the Pennsylvania Friends for aid.

The reports of the Swarthmore Corporation of Friends at Swarthmore College in 1896 reveal a growing movement away from the exclusive devotion to the parochial school among the more educated Friends, among whom is Dr. De Gamo, at that time president of the college, but later a professor in Cornell University. It was urged that the directors should more fully incline themselves to favoring the common schools, thus giving to the college access to a more extended constituency outside the sect. The increasing demand of the great body of the well-to-do Friends for superior schools will doubtless more and more bring the leading educators among the Quakers into harmony with the great central arrangement of the American people for universal education.

THE BAPTIST CHURCH OF THE NORTHERN STATES IN THE EDUCATION OF THE COLORED RACE IN THE SOUTH.

The Baptist Church of the Northern States was one of the earliest to enter the field in respect to the education of the freedmen. The Home Mission Society, established in 1832, originally had in view "the preaching of the Gospel in destitute regions, more especially in the West." But at the call of the exigency in 1861–1865 the society at once entered upon the "perplexing, difficult, hitherto untried experiment of providing for such a vast multitude a competent leadership, composed of men and women who had received some degree of training to fit them especially for the duties of teachers and preachers."

Naturally the work done in the schools founded by the mission societies for these people at first was crude, tentative, elementary, sometimes misleading and unsatisfactory; yet it proved on the whole to be of great value. Slowly, during the lapse of more than thirty years, these primitive schools have developed into institutions of learning modeled in large part after Christian schools of the North, but gradually adapting themselves in their ideas of instruction, discipline, and management to the peculiar necessities of the people for whom they were designed.

The changed conditions among the colored people, of which one of the influential causes has been the missionary work of the Northern churches, have been recognized by no board of management with more intelligence than by that of the Baptist Church. No church has given to the superintendency of its educational work a trio of more competent administrators than Morgan, McVicker, and Gregory, who since 1891 have been in constant touch with the schools for colored students and pupils. The reports of these gentlemen have discussed the real problems of negro education in the South with a fairness and consideration of the difficulties and hindrances attending it that have been a model for all missionary work in the same field. It was inevitable that the early missionaries, coming to this inviting and romantic work at the close of a revolutionary epoch, filled with patriotic ardor and religious zeal, but practically unacquainted with the history and social and industrial conditions of the South, many of them for the first time engaged either in educational or proper missionary work, should have rather attempted to impose a higher Anglo-Saxon civilization upon their credulous and childlike disciples than studied the nature, character, and actual history and possibilities of the first generation of a race that had never set its foot on the threshold of any schoolroom. We may commend the reports of these able and devoted men, published in the proceedings of the Baptist Home Mission Society

from 1893 to the present year, as among the most important documents amid the blinding cloud of literature in which the entire field of the education of the negro in the South has been enveloped.

In the report for 1896 attention is called to the unquestioned improvement made by the colored people during the past thirty years—"the dawn of a new day." The elements of this remarkable progress are noted as: (1) The establishment and support of a system of public schools for this race, including every grade of institution from the plantation primary to the industrial and normal college, supported by public taxation, as in all the public school States, at the expense of the general taxpaying class, 90 per cent of it being for the white population. It is believed by wise observers, all men of long experience and national reputation in common school affairs, that in due time this movement will "bring a common school education within the reach of all the colored youth of the country;" (2) the great service of the Peabody, Slater, and Hand funds in furnishing industrial and normal instruction for the colored people; (3) the missionary work of all the Northern churches, by which "many millions of dollars have been expended in the South in establishing distinctively Christian schools for the colored people;" (4) "the A. B. H. M. Society during this period of a generation has invested nearly $3,000,000 in this great work, by which many thousands of colored youth have been taught and trained through periods of time varying from ten days to as many years."

On a careful inspection of the higher schools for the negroes of all the Christian missions in 1880–1884 by the author of this essay the most pressing need was found to be an adequate supervision of their educational work by experts thoroughly acquainted with common school affairs. The religious, social, and moral training in all these seminaries was conducted with great intelligence, good policy, and remarkable zeal and self-sacrifice in a way that greatly redounded to the credit of the workers in this department, and developed the marvelous genius for civilization that is the most hopeful characteristic of the negro race. But the management of the proper school work in the majority of these large seminaries was often little more than the transplanting of the college, academy, and district school methods of half a century ago by boards of denominational management not acquainted with the ideas and methods of "the new education" already in practice in the common schools of the principal educational centers of the country, sometimes prejudiced against any new departure from "the good old way." While these "old ways" were getting modified, especially in the Northern States, by the pressure of all the powerful agencies developed in a revolutionary epoch brought to bear on the school life of the new generation, many of them were almost pernicious when applied to a people like the freedmen. On the contrary, the vital spirit and methods of the new education were especially adapted to the schooling of a people whose only university up to a very recent past had been the life on a Southern plantation and the training of nature, with the undoubted powerful influence of the institution of American negro slavery as perhaps the most effective elevator from barbarism to the verge of civilization up to that time known in human history.

The movement for thorough superintendence of the school work in all these institutions, save a few which, like Hampton, had been piloted in the right way from the beginning, was appreciated and adopted with great effect by the Baptist management. The three superintendents above named, each in turn, brought to the work indomitable energy, clear intelligence, and a thorough comprehension of the existing condition of elementary education in the most progressive of the common-school States. Among the supervisors in this entire region of educational life, none has been more capable than Dr. McVicker, who, in 1890, was appointed general superintendent of schools by the Baptist Home Mission Society.

Dr. McVicker came to New York from an excellent training in the Dominion of Canada and, for several years, was president of the New York State Normal School at Canton, St. Lawrence County. In 1893 a most valuable contribution was made to the general board of management by the election of Gen. T. J. Morgan as general secretary and practically superintendent of the work. General Morgan, after a valuable military experience in the civil war, had already served as principal of State normal schools in New York and Rhode Island, followed by an administration of four years as the head of the Indian Department at Washington. At a later period, Dr. Gregory, who for many years had been known as one of the most distinguished educators in several of the Western States, was called to the office of superintendent of the Baptist educational work in the South.

The report of 1891, by Dr. McVicker, contains a list of 14 schools of the secondary and higher education, established by the Baptist Church movement in 12 States and in the District of Columbia, dating from the foundation of the Wayland Seminary in Washington, D. C., in 1865 to Spelman Seminary for girls in Atlanta, Ga., in 1888. There were also 15 academical schools in 13 States and the Indian Territory tributary to these. By the aid received from the John F. Slater fund 4 of these large schools had been able to introduce a course of industrial training and had made a decidedly forward step in their organization for training teachers. The vigorous superintendency of Dr. McVicker had already borne the fruit of an organization of schools aiming to facilitate the much-needed schooling of the masses of students and act as fitting schools to the institutions above them. The instruction of all the academical and industrial schools was carefully graded, especially for the aid of the colored people for whose benefit it was set up.

In discussing the vital question, to what extent the society should contribute to the prosecution of this work and what modification of its policy should be made, Superintendent McVicker rises above the local sectional and sectarian views, which too often have embarrassed the operations of the Northern workers and reacted against the educational operations of the teacher. The great benefaction to education in the Spelman Seminary, Atlanta, Ga., by Mr. John D. Rockefeller had provided a gift that enabled this school to largely extend its work of secondary instruction. Still the friends of the cause understood the plain fact that a crisis had come in the educational affairs of the colored race in the South. After a prolonged inspection of all the schools established or aided by the society, Superintendent McVicker urged the establishment of secondary schools managed and largely supported by the colored people themselves and easily accessible for the more ambitious youth of the masses of the people, as a most effective agency in the impending crisis. He urges the all-important point that the next vital condition of the development of the negro race is a manhood and a womanhood Christianized by self-development, self-sacrifice, self-control, honesty, steadiness of purpose, and thrift. These are qualities which are not the production of mere knowledge nor of mere school instruction, however essential they may be considered. They are acquired rather through well-directed and persistent self-effort. It is self-evident that the colored people have now reached that stage of advancement that fits them properly for the exercise of a much higher degree of self-effort in educational matters than in the past.

The general conclusions of the superintendent are that "While remarkable progress has been made by a certain portion of the colored people during the past twenty-five years in everything that pertains to mental, intellectual, and moral advancement, progress has been confined to a comparatively small number of the 6,741,000 colored population of the United States. The masses of these are still in a deplorable condition." Six present causes are named that explain this fact: (1) "Unfavorable and exacting conditions;" (2) "Indolent and improvident

habits;" (3) "The one-room cabin;" (4) "The unkind and in many cases cruel and criminal treatment given to the women and children by the men;" (5) "The comparatively low degree of the social and parental relation and the presence among the people of many ignorant and in some cases unprincipled leaders, ministers and others, who for purely selfish motives dominate over them." (6) "It is doubtful if sufficient emphasis is placed in the schools upon the phases of work that are most desirable and best fitted to render efficient help in elevating and instructing the masses of the negro race." He dwells with vigor upon a very notable fact—that while the students in these great schools are "the cream of the negro race," yet, too often, after all the expenditure of money, zeal, and self-sacrifice in their behalf, "their education fails to produce the self-sacrificing missionary spirit in any considerable number of them."

The pupils in the schools are younger than at first and more inclined to prefer technical scholarship to the neglect of the character and of the disposition to engage in hard work and render self-sacrificing and effective service in helping to better the condition of the suffering and oppressed. His idea of missionary work corresponds to that so aptly described by Gen. S. C. Armstrong, as pushed to the very degree of failure among the natives of the Sandwich Islands. While urging a broader training and development in the industrial arts and especially the quality of self effort, he still inclines to the fact that even this does not send forth young people with the spirit of missionary work for the vast body of the race. This is the most difficult and important work to be done with those who are coming forward as leaders of this people.

The superintendent also speaks a much-needed warning concerning the inadequacy of the teaching force. With all praise for the personal character and full appreciation of the work of the teachers in this great service, and full acknowledgment of the advancement, moral, social, and educational, due to this influence, he asserts that the time has come when the claims of students, their aspirations and needs, and the higher range of their life work demand a superior order of teaching. The investigations of the past year have brought out the fact that it is no longer possible to secure this higher grade of instruction by relying on the spirit of self-sacrifice and missionary zeal in the workers. The superior teachers, he says, in all these schools are now working for half the salaries they might command elsewhere, indeed many of them can hardly "make ends meet" through the long Southern summer vacation if compelled to return home for rest and recuperation. In one leading seminary in eleven years the teachers had given to the school in gratuitous service, often through the expense of long sickness contracted in the work, the large sum of $70,729, an amount nearly equal to all that has been contributed to this school by the whole of New England. The plant of these schools should be again enlarged and especially the great work of training teachers and women missionaries should be extended. The total receipts for schools during the year 1893 were $57,627.48.

The report for 1894 opens with an inspiring summons to the negro race: "Called as the negro is to compete with the white race in every department of activity, he must be prepared to compete on equal terms. He must not be handicapped by any inferiority of preparation. He must neither ask nor receive any favor on the ground of race and color, but in the stern conflict of life he must give and take on the basis of equal manhood." The place of Dr. Tupper in Shaw University, Raleigh, N. C., one of the most successful of the early founders of colored schools, had been taken by Prof. Charles F. Meserve, superintendent of [illegible] of the largest United States Government schools for the education of the Indians, a positive addition to the upper strata of male educators in the South. The expenditure for the year amounted to $95,155 for salaries of teachers, the Home Mission Society contributing $75,315 and the Woman's Baptist Home Mission Society $19,840. In

addition there had been expended for buildings and other purposes, chiefly for the enlargement of schools, $77,834, making a total of $172,979 in a year of marked financial depression. The total attendance was 5,033, of whom 1,830 were preparing to teach. An important feature of the professional department was the nurse-training course at the Spelman Seminary for girls, in Atlanta, Ga. "A large proportion of the whole number have received systematic training in some line of industrial work." The society paid, in whole or in part, the salaries of 172 teachers, of whom 100 were women, 124 in the schools for colored youth. Fifteen of these schools were under the entire control of a board of colored trustees, three of the higher and twelve of the secondary, although subject to visitation by the superintendent of education. Thirty-nine of their 89 teachers were entirely supported by their own people, who, in 1894, contributed $13,202 in this way.

The Baptist Board of Missions seems to have favored the inevitable tendency toward the instruction and management of colored schools by their own people earlier than the other Northern missionary boards. The public schools for children and youth, with the exception of a few in cities, are under the direct care of teachers of their own race, although in the majority of cases directly responsible to a school board of which the majority—sometimes all the members—are white, besides the general superintendency of the school system of the place. In the City of Washington, D. C., where the schools for the negroes are most completely developed, the general board, containing two colored members, governs the entire system, while a colored assistant superintendent has immediate charge of the colored schools. For many years this office was filled with great success by a member of the Cook family, noted for its early and continuous connection with the schools of the free negro people of the District. In the State colleges for the higher and industrial training of the race the same policy is pursued, the teachers being all colored, while the State superintendents and boards of education have complete control of the outside administration. In the States of Virginia and Alabama the famous institutions of Hampton and Tuskegee are subsidized to a limited extent by the State, while their general affairs are in charge of boards of trustees representing both sections of the country and both races.

The American Missionary Association, Freedmen's Aid Society, and Committee of Missions for Freedmen, of the Congregational, Methodist, and Presbyterian churches, respectively, the most conspicuous rivals of the Baptist Home Mission Society in this work, have pursued a more conservative policy in this respect, their teachers being almost entirely Northern white persons. The Hampton Institute has always relied on graduates from the most celebrated institutions for Northern white students for its teaching corps, with a very small mixture of colored instructors. Mr. Booker T. Washington, afterwards the celebrated president of the Tuskegee, Ala., Normal and Industrial Institute, was called to that work from a responsible position as the head of the Indian department at Hampton.

It was easy to foresee that here was a problem that would tax the wisdom of all these organizations from the North. It can hardly be supposed that these great religious bodies will go on forever at the present rate, paying out a million or more dollars a year for the support of a system of schools which is constantly growing upon their hands and capable of indefinite expansion. As to the very large investment in the buildings and furnishings of these schools, which are among the best in that section of the country, there comes a question of delivering up a property so valuable even to the white, much more to the colored people, to the South. Already in the Baptist, and to a less extent in all these schools, the question of promoting colored teachers to responsible positions has been considered and has threatened disturbing dissensions. Superintendent McVicker, while urging the necessity of making the colored people more self-dependent and competent for administration in education, throws in an early note of warning in his report of 1894. He says of certain institutions:

The management of these schools is not in many cases what it should be. The men charged with it are not always wisely selected. They are inexperienced and have only a very imperfect knowledge of what constitutes a good school and of the functions and duty of trustees. They are easily biased by persuasion of friends and neighborhoods in the selection of teachers and disposed to interfere unwisely in the management of the schools.

Such warnings from an educator so competent and experienced in school work were timely, not only for the mission, but in the administration of the public schools in the South for this race. A great deal of the inefficiency complained of in the common schools for colored youth in all the Southern States is due to a mistaken policy by public boards of education in giving their administration entirely into the hands of the colored members. While it would seem that this policy was dictated, as it doubtless often is, by a desire to treat the colored population fairly, yet the practical result is the same—almost inevitably plunging the entire administration of the colored school department into the vortex of petty jealousies and exasperating contentions that so largely interfere with the proper influence of their churches. It would seem to be the duty of such boards, while giving the colored race a fair representation through their wisest and best men and women, to insist that the schools shall not fall under the control of a group of contentious preachers or politicians, but that the children and youth should be defended, often against the inexperience and even more destructive defects that still characterize the administrative work of this people.

Attention was also called to the fact that in all these schools it should be impressed on the pupils that every year there should be sent forth an increasing number of young people who in some useful way could be missionaries of a true American civilization to their own families and neighborhoods, which often at great sacrifices and with greater expectations had given to their young what were to them extraordinary opportunities for superior training and culture. It was also shown that the 5,000 students in all these schools, one-half of whom were in the professional classes, were being instructed at a sum many hundred dollars less than the one city of Baltimore paid its teachers in either one of its high or large grammar schools.

The superintendent answers the question of the Eastern contributors whether the chief responsibility of superintendency and management in these schools should be placed upon the colored public teacher, by a decided "No." With all the encouraging signs in the material and other development of this people he declares that this policy would surely result in a rapid retrograde movement and lead to the ultimate ruin of the schools. The weak point of the colored people, even in the better educated class, is the lack of executive capacity and the danger from perpetual jealousy and contention fatal to the success of educational affairs. He returns to his former topic concerning the conditions of the masses of the freedmen after thirty years of liberty and a quarter of a century of American citizenship. It would seem that no argument was required on this point to any fair-minded educator after a careful observation of the entire field. It was always necessary to meet the persistent demand of a growing party among the colored people that this great amount of school property and appliances should be committed altogether to themselves. But here is the problem which, before another thirty years have passed, will tax the seamanship of these great educational bodies to keep this splendid fleet of educational craft afloat in the open sea. The State industrial and normal colleges will avoid this peril, from the fact that the entire public school system is under the superintendence of State and local boards which will be largely composed of white persons in all these States of the South.

But all these matters of administration fall into comparative insignificance before the previous question of the colored support of this sphere of education by

the Baptist Church. This church had ten years ago a colored membership of 1,400,000, more than one-third of the entire number of the denomination in the United States. In the fifteen years of the service of Dr. McVicker as corresponding secretary the schools had increased from 8 to 34, from 38 teachers to 200, from an attendance of 1,191 to 5,000 or 6,000 pupils. Thirty-five substantial buildings had been reared and a school property of $1,000,000 placed on the ground. The schools had greatly improved in quality and the cost of their maintenance had accordingly increased. At least 7 of the larger schools put in an immediate demand for a stronger corps of instruction. In five years $150,000 would be needed for the annual expenditure. The powerful competition of the schools of other churches would leave the schools of this sect in the background when left to the test of respective merits. The Home Mission Society has already found it impossible to meet this demand except by the sacrifice of important missionary and educational enterprises.

The society is steadily falling behind in pecuniary affairs. A reduction of 40 or 50 per cent in missionary appropriations should be made, if the schools in the South are kept up. It is safe only to appropriate $50,000 a year for this important work. A permanent fund of $1,000,000 is imperatively needed, as the present expenditure requires the income of $2,000,000 at 5 per cent interest. In view of these facts, Superintendent McVicker urges the impossibility of supporting schools of any save the superior class. The training of leaders should be the chief if not the only work of the schools of the society. The graduates should be not only prepared as teachers and ministers, but trained for leadership in every department of life, industrial, social, civil, private, and public. All theological work should be confined to the school at Richmond, Va. Only a limited number of schools should be allowed to do proper college work, seven at the most, and not more than two schools be permitted to give a full professional training for which a normal diploma should be granted. A careful system of examination and inspection should be inaugurated in all the schools and the quality as well as quantity of the teaching force should be strictly considered. A large portion of the report deals with a bad condition of affairs in one of the institutions in Texas, and the burning by incendiary fires of several of their school buildings in Arkansas, Texas, and South Carolina.

In 1895 the Baptist church had made a hopeful advance toward the improvement of the school work in the appointment of an advisory committee in connection with the schools for colored people in the South supported by the Home Mission Society. The committee was to be only advisory, with no general or educational authority, but to have access to all schools and invited to present the results of their investigation to the two Home Mission Boards and the acting authorities of the institutions. This was a favorable movement toward what must inevitably come, the practical union and cooperation for all general purposes of the great educational missionary bodies, especially of the Protestant evangelical churches in both sections of the Union. Indeed, the practical beginning of this outward advancement toward some union of the sort is to-day evident to all observers competent to hold in one view the past experience and the inevitable burden that will fall upon these denominations if they continue the purely sectarian policy of expansion that has already brought the richest and most zealous of them to the brink of a financial crisis.

The amount expended in 1895 for schools was $117,480.50, with a total expenditure of $134,554.83. There were 232 teachers, of whom 130 were colored, with 4,358 students. The report for 1897 shows a singular condition of affairs in the work of schooling the colored race in the South. The 29 schools were supported at an expense of $108,869.75. A gratifying feature in the case was the fact that the colored people, represented by the 5,000 students, supplied for teachers $20,137.32, and the board, $64,079.57. This sum, increased by other gifts to $22,591.81, made

a total of $106,808.30. There seemed yet to be no response to the call for the general endowment, regarded essential to the continued existence of the higher schools, although the secondary seminaries were aided by special gifts.

Beside this large expenditure now during forty years in behalf of the colored children and youth in the South by the churches of every sect in the Northern States, there has been a large amount of money contributed and a great deal of good work done by personal and private effort. Indeed, one of the most philanthropic divisions of the religious public, including the Unitarian and Universalist denominations, and perhaps the larger bodies of the Christian connection may be added, with a great number of semireligious benevolent associations, has never followed the example of other sects in establishing schools, although in proportion to its numbers and means it is probable that as much has been contributed, especially to Hampton, Tuskegee, and a variety of smaller enterprises, as by the great organized educational and missionary boards. Numbers of faithful men and devoted women, some of the best in the land, have through all these years kept alive, in the more destitute districts of the Southern States, schools, missions, churches, along with an amount of private charity which has done much to supplement the public efforts of the communities to which their beneficence has been directed.

Here ends the account of the special movement which for the past forty years has wrought every year in a growing connection with the greater labors of the Southern people, directly and indirectly, in building their first general system of common schools. It was essential to the truth of history and to a fair estimation of the interest by the North and the nation in the civilization and education of millions of the new colored citizenship that this should be put in permanent record. All this has been done by these educational boards in a spirit as praiseworthy as has often been found in the similar work of the Christian church in any age or land; and every year it has been better appreciated by the superior class in the States which have been the great field of their operation. Indeed, the time has already passed when this remarkable movement in behalf of the colored people is regarded with disparagement by any considerable class of people anywhere. There will still be inevitable differences of opinion concerning the best methods of educating a people in a condition so peculiar. It may be that at times and in special places the school instruction has been too far above the capacity of the majority of pupils to be thoroughly or very largely incorporated into the character and living, especially of large numbers who were too young and remained too short a time in school to be permanently affected thereby. But in the great rivalry of the educational agencies now at work all methods have an opportunity of being tested, and a general drawing together of the superior educational workers in these schools will inevitably bring to the front the most valuable elements and forces developed by the entire movement. The churches have still a great work before them; first of all, "to settle up" all their differences which refer to the past, especially those connected with the period of sectarian contention and sectional hostility, through the twenty years from 1860 to 1880. There is certainly, ahead, in the opening century, a vast field of effort among the destitute places of our own population at home and in our new possessions around the world in which the united energies of the National Government, the churches, and the whole people may be brought to bear for the extirpation of the illiteracy of the millions who bear the name of American citizen or aspire to the possession of American citizenship. And when the people are lifted above the deplorable strife of partisan politics and sectarian ecclesiasticism it may be revealed to them that there is no grander work than the training of our twenty millions still involved in the great national slough of illiteracy toward the broad upland of that American citizenship which is the loftiest position yet offered to a whole people in the history of mankind.

CHAPTER VI.

LAWS RELATING TO TEMPERANCE INSTRUCTION.

A COMPILATION OF THE LAWS OF THE SEVERAL STATES AND TERRITORIES RELATING TO COMPULSORY INSTRUCTION IN THE PUBLIC SCHOOLS IN PHYSIOLOGY AND HYGIENE, WITH SPECIAL REFERENCE TO THE EFFECTS OF ALCOHOLIC DRINKS AND NARCOTICS UPON THE HUMAN SYSTEM.

ALABAMA.

[From General Public School Laws of Alabama, 1901.]

3546. *Duties of superintendent of education.*—The duties of superintendent of education shall be as follows: * * *

3. He shall make provision for instructing all pupils in all schools and colleges supported, in whole or in part, by public money, or under State control, in hygiene and physiology, with special reference to the effects of alcoholic drinks, stimulants, and narcotics upon the human system. (Page 6.)

3578. *Instruction as to the nature of alcoholic drinks and narcotics.*—Every teacher shall give instruction as to the nature of alcoholic drinks and narcotics and their effects upon the human system, and such subject shall be taught as regularly as any other in the public schools, and in every grade thereof. (Page 20.)

ALASKA.

See District of Columbia.

ARIZONA.

[From Public School Laws of Arizona, 1901.]

AN ACT to revise and codify the laws of Arizona, approved March 15, 1901, title 17: Education.

SEC. 13. Every applicant for a first-grade Territorial certificate must be examined by written and oral questions in algebra, geography, history and civics, physiology, hygiene, with special reference to the nature and the effects of alcoholic drinks and other narcotics and stimulants upon the human system, * * *. (Page 8.)

SEC. 85. Instruction must be given in the following branches, viz: Reading, writing, orthography, arithmetic, geography, grammar, history of the United States, elements of physiology, hygiene, including the nature of alcoholic drinks and narcotics and special instruction as to their effect upon the human system, * * *. (Page 31.)

See also District of Columbia.

ARKANSAS.

[From Digest of Laws Relating to Free Schools in the State of Arkansas, 1901 (pages 25-26).]

ACT LII.—AN ACT to require the teaching in the public schools of physiology and hygiene, with special reference to the effects of alcoholic drinks, stimulants, and narcotics upon the human system.

Be it enacted by the general assembly of the State of Arkansas:

SECTION 1. That physiology and hygiene, which must in each division of the subject thereof include special reference to the effect of alcoholic drinks, stimulants, and narcotics upon the human system, shall be included in the branches of study now and hereafter required to be regularly taught and studied by all the pupils in the common schools of this State.

SEC. 2. It shall be the duty of the boards of directors and county examiners to see to the observance of this statute and make provisions therefor; and it is especially enjoined upon the county examiner of each county that he include in his report to the State superintendent of public instruction the manner and extent to which the requirements of section 1 of this act are complied with in the schools and institutions of his county.

SEC. 3. After two years from the passage of this act no license shall be granted to any person to teach in the public schools of this State who has not passed a satisfactory examination in physiology and hygiene, with special reference to the effects of alcoholic drinks, stimulants, and narcotics upon the human system.

SEC. 4. That this act take effect and be in force from and after the first day of July, 1899.

Approved March 10, 1899.

CALIFORNIA.

[From School Laws of California, 1901 (pages 40-41).]

SEC. 1665. Instruction must be given in the following branches in the several grades in which they may be required, viz: Reading, writing, orthography, arithmetic, geography, nature study; language and grammar, with special reference to composition; history of the United States and civil government; elements of physiology and hygiene, with special reference to the effect of alcohol and narcotics on the human system; music, drawing, and elementary bookkeeping, humane education: *Provided*, That instruction in elementary bookkeeping, humane education, elements of physiology and hygiene, music, drawing, and nature study may be oral, no text-books on these subjects being required to be purchased by the pupils: *Provided further*, That county boards of education may, in districts having less than one hundred census children, confine the pupils to the studies of reading, writing, orthography, arithmetic, language and grammar, geography, history of the United States and civil government, elements of physiology and hygiene, and elementary bookkeeping until they have a practical knowledge of these subjects; * * *.

SEC. 1667. Instruction must be given in all grades of school and in all classes during the entire school course in manners and morals, and upon the nature of alcoholic drinks and narcotics and their effects upon the human system.

COLORADO.

[From The School Law of the State of Colorado as amended to date, 1901.]

SEC. 78. The public schools of this State shall be taught in the English language, and the school boards shall provide to have taught in such schools the branches specified in section fifteen of said [this] chapter, and such other branches

of learning in other languages as they may deem expedient, including hygiene, with special reference to the effects of alcoholic stimulants and narcotics upon the human body; * * *. (Page 63.)

Alcoholic drinks and narcotics (page 79).

AN ACT to provide for the study of the nature of alcoholic drinks and narcotics and their effects upon the human system in connection with the several divisions of the subject of physiology and hygiene by the pupils in the public schools of the State. Approved April 4, 1887. In force July 4, 1887. [L. '87, p. 378.]

NATURE AND EFFECTS OF ALCOHOLIC DRINKS AND NARCOTICS TO BE TAUGHT.

SECTION 1. That the nature of alcoholic drinks and narcotics and special instructions as to their effects upon the human system, in connection with the several divisions of the subject of physiology and hygiene, shall be included in the branches of study taught in the public schools of the State, and shall be studied and taught as thoroughly and in the same manner as other like required branches are in said schools, by the use of text-books designated by the board of directors of the respective school districts, in the hands of pupils where other branches are thus studied in said schools, and by all pupils in all said schools throughout the State. [L. '87, p. 378, sec. 1; Mills Ann. St., sec. 4046.]

FAILURE TO ENFORCE PROVISIONS OF ACT—PENALTY.

SEC. 2. That it shall be the duty of the proper officers in control of any school described in the foregoing section to enforce the provisions of this act; and any such officer, school director, committee, superintendent, or teacher who shall refuse, fail, or neglect to comply with the requirements of this act, or shall neglect, refuse, or fail or [to] make proper provisions for the instruction required, and in the manner specified by the first section of this act, for all pupils in each and every school under his or her jurisdiction, shall be removed from office, and the vacancy filled as in other cases. [L. '87, p. 379, sec. 2; Mills Ann. St., sec. 4047.]

CONNECTICUT.

[From Bulletin No. 11, 1901, public acts relating to education passed January session, 1901 (page 4).]

CHAPTER 81.—*The study of physiology and hygiene.*

(School laws, 1900, sections 41, 42, 79, 93.)

SECTION 1. The effects of alcohol and narcotics on health, and especially on character, shall be taught in connection with hygiene, as a regular branch of study, to all pupils above the third grade in all graded public schools except public high schools.

SEC. 2. Suitable text-books of physiology and hygiene, which explain the effects of alcohol and narcotics on the human system, shall be used in grades above the fifth in all graded public schools except public high schools.

SEC. 3. The provisions of sections one and two of this act shall apply, in ungraded public schools, to classes corresponding to the grades designated in said sections.

SEC. 4. All normal schools and teachers' training schools shall give instruction in the subjects prescribed in section one of this act and in the best methods of teaching such subjects.

SEC. 5. No certificate to teach in grades above the third shall be granted to any person who has not passed a satisfactory examination in the subjects prescribed in section one of this act.

SEC. 6. If it shall be satisfactorily proven to the comptroller that any town or district having pupils above the third grade has failed to meet the requirements

of this act, such failure shall be deemed sufficient cause for withholding, in whole or in part, school dividends which such town or district would otherwise be entitled to receive.

SEC. 7. Chapter clvii of the Public Acts of 1893 and sections 2100 and 2141 of the General Statutes are hereby repealed.

DELAWARE.

[From Delaware School Laws for Free Public Schools, 1898.]

SEC. 16. * * * It shall be the further duty of each of said committees and boards of education to see that all the pupils in all the free schools in the district are instructed in physiology and hygiene, with special reference to the effects of alcoholic drinks, stimulants, and narcotics upon the human system, and to see that all the said schools are sufficiently supplied with such text-books relating to such subjects as are furnished the district in the distribution of free text-books hereinafter provided. Any teacher in any of the free schools of the State, failing to so instruct all the pupils under his governance, shall, unless ordered to the contrary by a school officer having authority over him, be liable to a fine of $25, to be recovered before any justice of the peace of the proper county by any informer; and any school officer ordering a teacher under him not to instruct the pupils as aforesaid shall be liable to like fine, recoverable as aforesaid by any informer. (Page 24.)

SEC. 24. * * * Every person who is of a good moral character, and who shall in examination answer 90 per centum of the questions asked in orthography, reading, writing, mental arithmetic, written arithmetic, geography, physiology and hygiene, with special reference to the effect of alcoholic stimulants and narcotics upon the human system, * * * shall receive from the superintendent a first-grade certificate, * * * *. (Page 38.)

The requirements for second grade and provisional certificates likewise include the study of physiology and hygiene.—(Ed.)

DISTRICT OF COLUMBIA.

[U. S. Statutes, Forty-ninth Congress, first session.]

CCCLXII.

AN ACT to provide for the study of the nature of alcoholic drinks and narcotics, and of their effects upon the human system, in connection with the several divisions of the subject of physiology and hygiene, by the pupils in the public schools of the Territories and of the District of Columbia, and in the Military and Naval Academies, and Indian and colored schools in the Territories of the United States.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled:

SECTION 1. That the nature of alcoholic drinks and narcotics, and special instruction as to their effects upon the human system, in connection with the several divisions of the subject of physiology and hygiene, shall be included in the branches of study taught in the common or public schools, and in the Military and Naval Schools, and shall be studied and taught as thoroughly, and in the same manner, as other like required branches are in said schools, by the use of text-books in the hands of pupils where other branches are thus studied in said schools and by all pupils in all said schools throughout the Territories, in the Military and Naval Academies of the United States, and in the District of Columbia, and in all Indian and colored schools in the Territories of the United States.

SEC. 2. That it shall be the duty of the proper officers in control of any school described in the foregoing section to enforce the provisions of this act; and any such officer, school director, committee, superintendent, or teacher, who shall refuse or neglect to comply with the requirements of this act or shall neglect or fail to make proper provisions for the instruction required, and in the manner

specified by the first section of this act, for all pupils in each and every school under his jurisdiction, shall be removed from office and the vacancy filled as in other cases.

SEC. 3. That no certificate shall be granted to any person to teach in the public schools of the District of Columbia or Territories after the first day of January, anno Domini 1888, who has not passed a satisfactory examination in physiology and hygiene, with special reference to the nature and the effects of alcoholic drinks and other narcotics upon the human system.

Approved, May 20, 1886.

FLORIDA.

[From Digest of the School Laws of the State of Florida, 1900. (Pages 16, 18.)]

SEC. 40. Each board of public instruction is directed— * * *

14th. To prescribe, in consultation with prominent teachers, a course of study for the schools of the county and grade them properly, and to require to be taught in every public school in the country over which they preside elementary physiology, especially as it relates to the effects of alcoholic stimulants and narcotics, morally, mentally, and physically; and all persons applying for certificates to teach shall be examined upon this branch of study under the same conditions as other branches required by law. (Rev. Stat., sec. 242, 10th.)

GEORGIA.

Physiology and hygiene to be taught in public schools.

No. 367.

AN ACT to provide for the teaching of physiology and hygiene (physiology, which shall include with other hygiene the nature and effects of alcoholic drinks and other narcotics upon the human system) in the public schools in Georgia; to provide a penalty in case any board of education, in city or county, fails to provide for the teaching of the same, and requiring all teachers to stand a satisfactory examination upon said subject as for other subjects.

SECTION I. *Be it enacted by the general assembly of the State of Georgia, and be it hereby enacted by authority of the same*, That the nature of alcoholic drinks and narcotics, and special instruction as to their effects upon the human system, in connection with the several divisions of the subject of physiology and hygiene, shall be included in the branches of study taught in common or public schools in the State of Georgia, and shall be studied and taught as thoroughly and in the same manner as other like required branches are in said schools.

SEC. II. It shall be the duty of county and city superintendents of schools receiving aid from the State to report to the State school commissioner any failures or neglect on the part of the board of education; to make provisions for instructions of all pupils in any and all of the schools under their jurisdiction, in physiology and hygiene (physiology, which shall include with other hygiene the nature and effects of alcoholic drinks and other narcotics upon the human system); and the board of education of each county of this State shall adopt proper rules to carry the provisions of this law into effect.

SEC. III. No license shall be granted any person to teach in the public schools, receiving money from the State, after the first Monday in January, 1903, who has not passed a satisfactory examination in physiology and hygiene (physiology, which shall include with other hygiene the nature and effects of alcoholic drinks with other narcotics upon the human system).

SEC. IV. Be it further enacted that all laws in conflict with this act are hereby repealed.

Approved, December 17, 1901.

HAWAII.

See District of Columbia.

IDAHO.

[From General School Laws of the State of Idaho, 1901. Page 29.]

SEC. 1628. *Certificates, to whom granted.*—The county superintendent shall grant certificates in such form as the State superintendent shall prescribe to those persons only who shall have attained the age of eighteen years, who have attended the said public examination and shall be found to possess good and moral character, thorough scholarship, and ability to govern and instruct the school, but no certificate shall be granted to any person, except to applicants for primary certificates, who shall not pass a satisfactory examination in orthography, reading, writing, grammar, arithmetic, geography, history of the United States, civil government, physiology, and hygiene, with particular reference to the effects of alcoholic drinks, stimulants, and narcotics upon the human system. * * *.

ILLINOIS.

[From Illinois School Law, 1901. Pages 91-92.]

AN ACT to amend "An act relating to the study of physiology and hygiene in the public schools," approved June 1, 1889, in force July 1, 1889. Approved June 9, 1897, in force July 1, 1897.

SECTION 1. *Be it enacted by the people of the State of Illinois, represented in the general assembly*, That "An act relating to the study of physiology and hygiene in the public schools," approved June 1, 1889, in force July 1, 1889, be amended so as to read as follows:

That the nature of alcoholic drinks and other narcotics and their effects on the human system shall be taught in connection with the various divisions of physiology and hygiene as thoroughly as are other branches in all schools under State control, or supported wholly or in part by public money, and also in all schools connected with reformatory institutions.

All pupils in the above-mentioned schools below the second year of the high schools and above the third year of school work, computing from the beginning of the lowest primary year, or in corresponding classes of ungraded schools, shall be taught and shall study this subject every year from suitable text-books in the hands of all pupils, for not less than four lessons a week for ten or more weeks of each year, and must pass the same tests in this as in other studies.

In all schools above mentioned all pupils in the lowest three primary school years, or in corresponding classes in ungraded schools, shall each year be instructed in this subject orally for not less than three lessons a week for ten weeks in each year, by teachers using text-books adapted for such oral instruction as a guide and standard.

The local school authorities shall provide needed facilities and definite time and place for this branch in the regular course of study.

The text-books in the pupils' hands shall be graded to the capacities of the fourth year, intermediate, grammar, and high school pupils, or to corresponding classes as found in ungraded schools.

For students below high-school grade, such text-books shall give at least one-fifth their space, and for students of high-school grade shall give not less than twenty pages to the nature and effects of alcoholic drinks and other narcotics. The pages on this subject, in a separate chapter at the end of the book, shall not be counted in determining the minimum.

SEC. 2. In all normal schools, teachers' training classes, and teachers' institutes, adequate time and attention shall be given to instruction in the best methods of

teaching this branch, and no teacher shall be licensed who has not passed a satisfactory examination in this subject and the best methods of teaching it.

Any school officer or officers who shall neglect or fail to comply with the provisions of this act shall forfeit and pay for each offense the sum of not less than five dollars nor more than twenty-five dollars.

INDIANA.

[From School Law of Indiana, 1901-2. (Pages 205-206.)]

(1895, p. 375. Approved March 14, 1895. In force June 28, 1895.)

228. *Effect of alcoholic drinks and narcotics.*—1. The nature of alcoholic drinks and narcotics and their effects on the human system in connection with the subjects of physiology and hygiene shall be included in the branches to be regularly taught in the common schools of the State and in all educational institutions supported wholly or in part by money received from the State, and it shall be the duty of the boards of education and boards of such educational institutions, the township trustees, the board of school trustees of the several cities and towns in this State, to make provisions for such instruction in the schools and institutions under their jurisdiction, and to adopt such methods as shall adapt the same to the capacity of the pupils in the various grades therein; but it shall be deemed a sufficient compliance with the requirements of this section if provision be made for such instruction orally only, and without the use of text-books by the pupils. (R. S., 1897, § 6201.)

229. *Teachers examined concerning.*—2. No certificate shall be granted to any person [on] or after the first day of July, 1895, to teach in the common school or in any educational institution supported as aforesaid who does not pass a satisfactory examination as to the nature of alcoholic drinks and narcotics and their effects upon the human system. (R. S., 1897, § 6118.)

230. *Failure to teach effects—dismissal.*—3. Any superintendent or principal of, or teacher in any common school or educational institution supported as aforesaid, who willfully refuses or neglects to give the instruction required by this act shall be dismissed from his or her employment. (R. S., 1897, § 6202.)

INDIAN TERRITORY.

See District of Columbia.

IOWA.

[From Iowa School Laws and Decisions, 1902.]

The normal school.

SEC. 2677. *Branches of study.*—Physiology and hygiene shall be included in the branches of study regularly taught to and studied by all pupils in the school, and special reference shall be made to the effect of alcoholic drinks, stimulants, and narcotics upon the human system; and the board of trustees shall provide the means for the enforcement of the provisions of this section, and see that they are obeyed. [25 G. A., ch. 1, §1.] (Page 117.)

Examination of teachers.

SEC. 2736. *Subject.*—The examination shall include competency in and ability to teach orthography, reading, writing, arithmetic, geography, grammar, history of the United States, didactics, and physiology and hygiene, which latter, in each

division of the subject, shall include special reference to effects of alcohol, stimulants, and narcotics upon the human system. * * * (Pages 11-12.)

NOTE 4 (by superintendent of public instruction).—It is the intention of the law that the study of physiology and hygiene with special reference to the effects of alcoholic stimulants, narcotics, and poisonous substances, shall have at least equal rank with and be considered of as great importance as other branches of study. (Page 12.)

SEC. 2737. *Certificate—revocation.*—* * * The superintendent shall revoke the certificate of any teacher who shall fail or neglect to comply with the provisions of law relating to the teaching of physiology and hygiene, and such teacher shall be disqualified for teaching in any public school for one year thereafter. (Pages 12, 14.)

SEC. 2739. *Reports.*—The county superintendent shall annually, on the first Tuesday in October, make a report to the superintendent of public instruction, giving a full abstract of the several reports made to him by the secretaries and treasurers of school boards, stating the manner in and extent to which the requirements of the law regarding instruction in physiology and hygiene are observed, and such other matters as he may be directed by the State superintendent to include therein, or he may think important in showing the actual condition of the schools in his county. * * * (Page 16.)

SEC. 2740. *Enforcing laws.*—The county superintendent shall see that all provisions of the school law, so far as it relates to the schools or school officers within his county, are observed and enforced, specially those relating to the fencing of schoolhouse grounds with barb wire and the introduction and teaching of such divisions of physiology and hygiene as relate to the effects of alcohol, stimulants, and narcotics upon the human system, and to this end he may require the assistance of the county attorney, who shall at his request bring any action necessary to enforce the law or recover penalties incurred. [21 G. A., ch. 1, § 2; 20 G. A., ch. 103, § 2.] (Page 17.)

Board of directors.

SEC. 2775. *Instruction as to stimulants, narcotics, and poisons.*—It shall require all teachers to give and all scholars to receive instruction in physiology and hygiene, which study in every division of the subject shall include the effects upon the human system of alcoholic stimulants, narcotics, and poisonous substances. The instruction in this branch shall, of its kind, be as direct and specific as that given in other essential branches, and each scholar shall be required to complete the part of such study in his class or grade before being advanced to the next higher, and before being credited with having completed the study of the subject. [21 G. A., ch. 1.] (Pages 45-6.)

NOTES by superintendent of public instruction:

SEC. 2775. 1. This study must begin in the lowest primary class. In what grade or class it shall be completed is to be determined by the board.

2. Primary classes must be instructed orally, as the children are not old enough to use or comprehend a book. But this oral instruction must be outlined as a course and adopted by each board. (Page 45.)

KANSAS.

[From School Laws of Kansas, 1901 (page 75).]

SEC. 206. *Examination of teachers in physiology and hygiene.*—No certificate shall be granted to any person to teach in any of the public schools of this State after the 1st day of January, 1886, who has not passed a satisfactory examination in the elements of physiology and hygiene with special reference to the effects of alcohol stimulants and narcotics upon the human system: and provision shall be made by the proper officers, committees, and boards for instructing all

pupils in each public school supported by public money and under State control upon the aforesaid topics. (Laws, 1885, ch. 169, sec. 1; Gen. Stat., 1889, sec. 5667.)

KENTUCKY.

[From Kentucky Common School Laws, 1900 (page 15).]

SEC. 21. *Course of study.*—The instruction prescribed by the board shall embrace spelling, reading, writing, arithmetic, English grammar, English composition, geography, physiology and hygiene, civil government, United States history, and the history of Kentucky. After July 1, 1893, the nature and effects of alcoholic drinks and narcotics upon the human system shall, in all schools supported wholly or in part by the State, be taught as thoroughly as other required studies to all pupils studying physiology and hygiene as a part of this branch.

LOUISIANA.

[From State School Law approved July 10, 1902.]

SEC. 23. *Be it further enacted, etc.*, That the branches of orthography, reading, writing, drawing, arithmetic, geography, grammar, United States history, the laws of health, including the evil effects of alcohol and narcotics, shall be taught in every district. * * * (Page 21.)

Grades of certificates.

SEC. 51. *Be it further enacted, etc.*, That to obtain a third-grade certificate the applicant must be found competent to teach spelling, reading, penmanship, drawing, arithmetic, English grammar, geography, the history of the United States, the Constitution of the United States, the constitution of the State of Louisiana, physiology, and hygiene with special reference to the effects of stimulants and narcotics upon the human system, and the theory and art of teaching. (Page 29.)

MAINE.

[From Maine School Laws, 1901.]

Powers and duties of superintending school committees and superintendents.

SEC. 87. II. On satisfactory evidence that a candidate possesses a good moral character and a temper and disposition suitable to be an instructor of youth, they shall examine him in reading, spelling, English grammar, geography, history, arithmetic, bookkeeping, civics, and physiology with special reference to the effects of alcoholic drinks, stimulants, and narcotics upon the human system; * * *. (Pages 22–3.)

III. * * * No certificate shall be granted any person to teach in the public schools of this State after the fourth day of July, eighteen hundred and eighty-five, who has not passed a satisfactory examination in physiology and hygiene with special reference to the effects of alcoholic drinks, stimulants, and narcotics upon the human system. (Page 23.)

V. They shall make provisions for instructing all pupils in all schools supported by public money, or under State control, in physiology and hygiene with special reference to the effects of alcoholic drinks, stimulants, and narcotics upon the human system. (Pages 23–4.)

MARYLAND.

[From the School Laws of Maryland, to January session, 1902 (page 19). 1886, ch. 495.]

40. The nature of alcoholic drinks and narcotics, with special instruction as to their effects upon the human system, in connection with the several divisions

of the subject of physiology and hygiene, shall be included in the branches of study taught in the common schools, and shall be taught to and studied by all pupils whose capacity will admit of it, in all departments of the public schools of the State, and in all educational institutions supported wholly or in part by money from the State; and the said study shall be taught to and studied by said pupils in said schools as thoroughly and in the same manner as other like branches are there taught and studied, with text-books in the hands of pupils, where other like branches are thus studied; and said text-books must be published, printed, and sold in the State of Maryland.

41. It shall be the duty of boards of county school commissioners and of the board of commissioners of public schools of Baltimore city, county examiners, superintendents of public schools of Baltimore city, and boards of all educational institutions receiving aid from the State, to enforce the provisions of the preceding section.

MASSACHUSETTS.

[From the Revised Laws of the Commonwealth of Massachusetts relating to Public Instruction, 1902.]

Public schools.

SECTION 1. Every city and town shall maintain, for at least thirty-two weeks in each year, a sufficient number of schools for the instruction of all the children who may legally attend a public school therein, except that in towns whose assessed valuation is less than two hundred thousand dollars, the required period may, with the consent of the board of education, be reduced to twenty-eight weeks. Such schools shall be taught by teachers of competent ability and good morals, and shall give instruction in orthography, reading, writing, the English language and grammar, geography, arithmetic, drawing, the history of the United States, physiology and hygiene, and good behavior. In each of the subjects of physiology and hygiene special instruction as to the effects of alcoholic drinks and of stimulants and narcotics on the human system shall be taught as a regular branch of study to all pupils in all schools which are supported wholly or partly by public money, except schools which are maintained solely for instruction in particular branches. * * * [Revised Laws, chapter 42.] (Page 11.)

School attendance.[a]

SECTION 1. Every child between seven and fourteen years of age shall attend some public day school in the city or town in which he resides during the entire time the public day schools are in session. * * * The attendance of a child upon a public day school shall not be required if he has attended for a like period of time a private day school approved by the school committee of such city or town in accordance with the provisions of the following section, or if he has been otherwise instructed for a like period of time in the branches of learning required by law to be taught in the public schools, or if he has already acquired such branches of learning. * * * (Pages 25–6.)

SEC. 2. For the purposes of the preceding section, school committees shall approve a private school only when the instruction in all the studies required by law is in the English language, and when they are satisfied that such instruction equals in thoroughness and efficiency and in the progress made therein the instruction in the public schools in the same city or town; * * *. [R. L., ch. 44.] (Page 26.)

[a] The requirements of the school attendance law virtually compel the private schools of the State to adopt instruction in scientific temperance. Otherwise attendance upon them will not be accepted as an equivalent for the compulsory period required in the law.

MICHIGAN.

[From the General School Laws of Michigan, 1901.]

(58.) § 4680. SEC. 15. The district board shall specify the studies to be pursued in the schools of the district [districts], and in addition to the branches in which instruction is now required by law to be given in the public schools of the State, instruction shall be given in physiology and hygiene, with a special reference to the nature of alcohol and narcotics and their effects upon the human system. Such instruction shall be given by the aid of text-books in the case of pupils who are able to read, and as thoroughly as in other studies pursued in the same school. The text-books to be used for such instruction shall give at least one-fourth of their space to the consideration of the nature and effects of alcoholic drinks and narcotics, and the books used in the highest grade of graded schools shall contain at least twenty pages of matter relating to this subject. Text-books used in giving the foregoing instructions shall first be approved by the State board of education. Each school board making a selection of text-books under the provisions of this act shall make a record thereof in their proceedings, and text-books once adopted under the provisions of this act shall not be changed within five years, except by the consent of a majority of the qualified voters of the district present at an annual meeting, or at a special meeting called for that purpose. The district board shall require each teacher in the public schools of such district before placing the school register in the hands of the directors [director], as provided in section thirteen of this act, to certify therein whether or not instruction has been given in the school or grade presided over by such teacher, as required by this act, and it shall be the duty of the director of the district to file with the township clerk a certified copy of such certificate. Any school board neglecting or refusing to comply with any of the provisions of this act shall be subject to fine or forfeiture the same as for neglect of any other duty pertaining to their office. This act shall apply to all schools in the State, including schools in cities or villages, whether incorporated under special charter or under the general laws. [Act 165, 1887.] (Pages 20–1.)

Miscellaneous provisions relative to education and the schools.

AN ACT to regulate the uniformity of and to provide free school text-books in public schools throughout the State, and the distribution of the same, and to repeal all statutes and acts contravening the provisions of this act.

(153.) § 4775. SECTION 1. The people of the State of Michigan enact, that from and after June thirtieth, eighteen hundred and ninety, each school board of the State shall purchase, when authorized, as hereinafter provided, the text-books used by the pupils of the schools in its district in each of the following subjects, to wit: Orthography, spelling, writing, reading, geography, arithmetic, grammar (including language lessons), national and State history, civil government, and physiology and hygiene; but text-books once adopted under the provisions of this act shall not be changed within five years: Provided, That the text-book on the subject of physiology and hygiene must be approved by the State board of education, and shall in every way comply with section fifteen of act number one hundred and sixty-five of the public acts of eighteen hundred and eighty-seven, approved June ninth, eighteen hundred and eighty-seven: And provided further, That all text-books used in any school district shall be uniform in any one subject. [Act 147, 1889.] (Pages 53–4.)

Certain text-books, etc., duty of the board relating thereto.

(256.) § 1827. SEC. 16. The said board shall examine all text-books in physiology and hygiene offered for use in the public schools of this State, and approve

those only which comply with the law relative to the space required to be devoted to the consideration of the nature and effects of alcoholic drinks and narcotics, as provided in act one hundred and sixty-four of the public acts of eighteen hundred and eighty-seven. * * * (Page 90.)

NOTE.—The act of 1887 referred to is act 165 instead of 164. It amends sec. 15, ch. 3, of the general laws of 1881 relative to public instruction, and will be found in section 4980. See Comp., section 58, *ante*.

MINNESOTA.

[From Laws of Minnesota Relating to the Public School System. 1901 (page 111).]

§ 365 (1894, § 3892). *In physiology and hygiene.*—It shall be the duty of the boards of education and trustees in charge of schools and educational institutions supported in whole or in part by public funds to make provision for systematic and regular instruction in physiology and hygiene, including special reference to the effects of stimulants and narcotics upon the human system.

§ 366 (1894, §§ 3893, 3894). *Teachers to be examined and give instruction in.*—It shall be the duty of all teachers in public schools of the State to give systematic and regular instruction in physiology and hygiene, including special reference to the effects of stimulants and narcotics upon the human system; and any neglect or refusal on the part of such teachers to provide instruction as aforesaid shall be deemed sufficient cause for annulling his or her certificate by the county superintendent or other competent officer. No certificate shall be granted any person to teach in the public schools of this State * * * who has not passed a satisfactory examination in physiology and hygiene, with special reference to the effects of stimulants and narcotics upon the human system.

It is for the board of education, in a fair endeavor to observe the requirements of the law, and subject, of course, to your review, to determine to what extent, in what grades, and by what means instruction upon the subjects named shall be imparted. (Attorney General Childs to State Superintendent, June 4, 1895.)

§ 367 (1894, § 3895). *Duty of county superintendent.*—It shall be the duty of the county superintendent of schools to report to the superintendent of public instruction any failure or neglect on the part of any board of education or trustees of a school or institution receiving aid in whole or in part from the State to make provision for the instruction aforesaid, and such failure or neglect being satisfactorily proven by the county superintendent or by other persons, it shall be sufficient warrant upon which the superintendent of public instruction may withhold the apportionment of the current school fund from such district; provided, that not more than one-fourth of said apportionment shall be withheld upon the first offense, one-third upon the second, and one-half upon any subsequent offense.

The withholding of an apportionment is a harsh measure and should not be inflicted upon a district unless it is obvious that the infraction has been willful. (Childs, May 13, 1895.)

§ 368 (1894, § 3896). *Text-book.*—The superintendent of public instruction and the presidents of the normal schools of this State are directed to recommend some suitable text-book, and to furnish the same at cost to the several school districts of this State, for the study of physiology and hygiene, with special reference to the effects of stimulants and narcotics upon the human system.

MISSISSIPPI.

[From School Laws of Mississippi, 1900 (pages 27, 43).]

Examination of teachers.

SEC. 4022. To obtain a first-grade license the applicant must be examined on spelling, reading, practical and mental arithmetic, geography, English grammar and composition, United States history, history of Mississippi, elements of natural philosophy, civil government, elements of physiology and hygiene with special

reference to the effects of alcohol and narcotics on the human system; and to obtain a second-grade license the applicant must be examined on spelling, reading, mental arithmetic, practical arithmetic, elementary geography, elementary English grammar and composition, and primary United States history, and primary physiology with special reference to the effects of alcohol and narcotics on the human system; but a teacher otherwise qualified shall not be refused a certificate to teach for the next two years by reason of a want of sufficient knowledge on the subject of physiology.

SEC. 4023. To obtain a third-grade license the applicant must be examined on the subjects required for second grade and must make thereon an average of not less than sixty per centum, with not less than forty per centum on any subject.

State board of examiners. (Act approved March 18, 1896.)

SEC. 7. Any teacher may secure a State license by passing a satisfactory examination, in the presence of the county superintendent or other authorized agent of the State board of examiners, in spelling, reading, practical and mental arithmetic, geography, English grammar and composition, United States history, Mississippi history, elements of natural philosophy, civil government, elements of physiology and hygiene with special reference to the effects of alcohol and narcotics on the human system, * * *

MISSOURI.

[From School Laws of the State of Missouri, 1899.]

SEC. 9799. *Instruction in physiology and hygiene.*—Physiology and hygiene, including their several branches, with special instruction as to the effect of alcoholic drinks, narcotics, and stimulants on the human system, shall constitute a part of the course of instruction and be taught in all schools supported wholly or in part by public money or under State control. [R. S., 1889, § 8024, amended, Laws, 1897, p. 233.] (Page 46.)

Examination for teachers' certificates.

SEC. 9958. * * * Teachers shall be granted a third-grade certificate who are of good moral character and who shall pass a satisfactory examination upon the following branches: Arithmetic, language lessons, English grammar, geography, spelling, reading, penmanship, United States history, civil government (including State government), and physiology and hygiene with special reference to the effect of alcoholic drinks and stimulants and narcotics generally upon the human system. * * * (Page 82.)

Examination for first and second grade certificates same as the foregoing, with certain additional subjects.—(ED.)

MONTANA.

[From School Laws of the State of Montana, 1899 (pages 56–57).]

Schools—Course of study.

SECTION 1861. All common schools shall be taught in the English language, and instruction shall be given in the following branches, viz: Reading, penmanship, orthography, written arithmetic, mental arithmetic, geography, English grammar, physiology and hygiene with special reference to the effect of alcoholic stimulants and narcotics on the human system, history of the United States, civics of the United States and of Montana. Attention must be given during the entire school course to the cultivation of manners, to the laws of health, physical exercise, ventilation, and temperature of the school room.

NEBRASKA.

[From The School Laws and School Land Laws of Nebraska, 1901 (page 59).]

SEC. 5a. *Scientific temperance instruction.*—Provisions shall be made by the proper local school authorities for instructing the pupils in all schools supported by public money, or under State control, in physiology and hygiene with special reference to the effects of alcoholic drinks and other stimulants and narcotics upon the human system.

SEC. 6. *Examination.*—No certificate shall be granted to any person to teach in the public schools of the State of Nebraska after the first day of January, eighteen hundred and eighty-six, who has not passed a satisfactory examination in physiology and hygiene with special reference to the effects of alcoholic drinks and other stimulants and narcotics upon the human system.

NEVADA.

[From State of Nevada School Laws, 1897 (page 5).]

State board of education. (Statutes 1895, p. 81.)

SEC. 4. The powers and duties of the board shall be as follows:

First. To prescribe and cause to be adopted a uniform series of text-books in the principal studies pursued in the public schools, to wit: Reading, writing, arithmetic, spelling, language, grammar, geography, history of the United States, physiology, and drawing. Special prominence shall be given in all public schools to the effect of alcoholic stimulants and of narcotics upon the human system. No school district shall be entitled to receive its pro rata of the public-school money unless such text-books on the above subjects as have been prescribed by the State board of education shall be used in all the public schools pursuing subjects covered by said text-books; and text-books shall not be changed oftener than once in four years. * * *

NEW HAMPSHIRE.

[From School Laws of the State of New Hampshire, 1901 (pages 27-28).]

The school board.

SEC. 6. (As amended by chapter 40 and chapter 50, Session Laws of 1895.) They shall prescribe in all mixed schools and in all graded schools above primary the studies of physiology and hygiene, having special reference to the effects of alcoholic stimulants and of narcotics upon the human system, and shall see that the studies so prescribed are thoroughly taught in said schools and that well-approved text-books upon these subjects are furnished to teachers and scholars.[a] * * *

NEW JERSEY.

[From New Jersey School Laws, 1902 (pages 104-105).]

Nature and effect of alcohol and narcotics to be taught.

237. The nature of alcoholic drinks and narcotics and their effects upon the human system shall be taught in all schools supported wholly or in part by public moneys as thoroughly and in the same manner as other like branches shall be taught, by the use of graded text-books in the hands of the pupils when other branches shall be thus taught, and orally only in the case of pupils unable to read.

[a] Section 2, chapter 40, Laws of 1895: If any member of the school board shall neglect or refuse to comply with the provisions of the first paragraph of section 6 he shall forfeit the sum of two hundred dollars.

In the text-books on physiology and hygiene the space devoted to the consideration of the nature of alcoholic drinks and narcotics and their effects upon the human system shall be sufficient for a full and adequate treatment of the subject. The failure or refusal of any district to comply with the provisions of this section shall be sufficient cause for withholding from such district the State appropriation.

Teachers to be examined in physiology.

238. No certificate shall be granted to any person to teach in the public schools, except to persons applying for special certificates to teach music, drawing, manual training, or other subjects not included in the usual school curriculum, who shall not have passed a satisfactory examination in physiology and hygiene with special reference to the nature of alcoholic drinks and narcotics and their effects upon the human system.

NEW MEXICO.

See District of Columbia.

NEW YORK.

[From the Consolidated School Law of the State of New York, 1901.]

TITLE V.—*School commissioners.*

SEC. 13. Every commissioner shall have power, and it shall be his duty: * * *

5. To examine * * * persons proposing to teach common schools within his district. * * * No certificate shall be granted to any person to teach in the public schools of this State who has not passed a satisfactory examination in physiology and hygiene, with special reference to the effects of alcoholic drinks, stimulants, and narcotics upon the human system. * * * (Pages 26, 28.)

TITLE VII, ARTICLE 6.—*Trustees.*

SEC. 47. It shall be the duty of the trustee or trustees of every school district, and they shall have power: * * *

11. To establish rules for the government and discipline of the schools in their respective districts, and to prescribe the course of studies to be pursued in such schools. Provision shall be made for instructing pupils in all schools supported by public money, or under State control, in physiology and hygiene, with special reference to the effect of alcoholic drinks, stimulants, and narcotics upon the human system. (Pages 49, 50-51.)

TITLE VIII, ARTICLE 4.—*Boards of education.*

SEC. 15. The said board of education of every union free-school district shall severally have power, and it shall be their duty: * * *

5. To make provision for the instruction of pupils in physiology and hygiene, with special reference to the effect of alcoholic drinks, stimulants, and narcotics upon the human system. (Page 77.)

TITLE XV, ARTICLE 6.—*Physiology and hygiene in the public schools.*

(As amended by sec. 1, ch. 901, Laws of 1896.)

SEC. 19. The nature of alcoholic drinks and other narcotics and their effects on the human system shall be taught in connection with the various divisions of physiology and hygiene as thoroughly as are other branches in all schools under State control or supported wholly or in part by public money of the State, and also in all schools connected with reformatory institutions. All pupils in the above-mentioned schools below the second year of the high school and above the third year of school work, computing from the beginning of the lowest primary, not

kindergarten, year, or in corresponding classes of ungraded schools, shall be taught and shall study this subject every year with suitable text-books in the hands of all pupils, for not less than three lessons a week for ten or more weeks, or the equivalent of the same in each year, and must pass satisfactory tests in this as in other studies before promotion to the next succeeding year's work; except that where there are nine or more school years below the high school, the study may be omitted in all years above the eighth year and below the high school, by such pupils as have passed the required tests of the eighth year. In all schools above mentioned all pupils in the lowest three primary, not kindergarten, school years, or in corresponding classes in ungraded schools, shall each year be instructed in this subject orally for not less than two lessons a week for ten weeks, or the equivalent of the same in each year, by teachers using text-books adapted for such oral instruction as a guide and standard, and such pupils must pass such tests in this as may be required in other studies before promotion to the next succeeding year's work. Nothing in this act shall be construed as prohibiting or requiring the teaching of this subject in kindergarten schools. The local school authorities shall provide needed facilities and definite time and place for this branch in the regular courses of study. The text-books in the pupils' hands shall be graded to the capacities of fourth year, intermediate, grammar, and high-school pupils, or to corresponding classes in ungraded schools. For students below high-school grade, such text-books shall give at least one-fifth their space, and for students of high-school grade, shall give not less than twenty pages, to the nature and effects of alcoholic drinks and other narcotics. This subject must be treated in the text-books in connection with the various divisions of physiology and hygiene, and pages on this subject in a separate chapter at the end of the book shall not be counted in determining the minimum. No text-book on physiology not conforming to this act shall be used in the public schools, except so long as may be necessary to fulfill the conditions of any legal adoption existing at the time of the passage of this act. All regents' examinations in physiology and hygiene shall include a due proportion of questions on the nature of alcoholic drinks and other narcotics and their effects on the human system.

SEC. 20. In all normal schools, teachers' training classes, and teachers' institutes adequate time and attention shall be given to instruction in the best methods of teaching this branch, and no teacher shall be licensed who has not passed a satisfactory examination in the subject and the best methods of teaching it. On satisfactory evidence that any teacher has willfully refused to teach this subject, as provided in this act, the State superintendent of public instruction shall revoke the license of such teacher. No public money of the State shall be apportioned by the State superintendent of public instruction or paid for the benefit of any city until the superintendent of schools therein shall have filed with the treasurer or chamberlain of such city an affidavit, and with the State superintendent of public instruction a duplicate of such affidavit, that he has made thorough investigation as to the facts, and that to the best of his knowledge, information, and belief all the provisions of this act have been complied with in all the schools under his supervision in such city during the last preceding legal school year; nor shall any public money of the State be apportioned by the State superintendent of public instruction, or by school commissioners, or paid for the benefit of any school district, until the president of the board of trustees, or in the case of common-school districts the trustee or some one member of the board of trustees, shall have filed with the school commissioner having jurisdiction an affidavit that he has made thorough investigation as to the facts, and that to the best of his knowledge, information, and belief all the provisions of this act have been complied with in such district, which affidavit shall be included in the trustees' annual

report: and it shall be the duty of every school commissioner to file with the State superintendent of public instruction an affidavit in connection with his annual report showing all districts in his jurisdiction that have, and those that have not, complied with all the provisions of this act, according to the best of his knowledge, information, and belief, based on a thorough investigation by him as to the facts; nor shall any public money of the State be apportioned or paid for the benefit of any teachers' training class, teachers' institute, or other school mentioned herein, until the officer having jurisdiction or supervision thereof shall have filed with the State superintendent of public instruction an affidavit that he has made a thorough investigation as to the facts, and that to the best of his knowledge, information, and belief all the provisions of this act relative thereto have been complied with. The principal of each normal school in the State shall, at the close of each of their school years, file with the State superintendent of public instruction an affidavit that all the provisions of this law applicable thereto have been complied with during the school year just terminated, and until such affidavit shall be filed no warrant shall be issued by the State superintendent of public instruction for the payment by the treasurer of any part of the money appropriated for such school. It shall be the duty of the State superintendent of public instruction to provide blank forms of affidavit required herein for use by the local school officers, and he shall include in his annual report a statement showing every school, city, or district which has failed to comply with all the provisions of this act during the preceding school year. On complaint by appeal to the State superintendent of public instruction by any patron of the schools mentioned in the last preceding section, or by any citizen, that any provision of this act has not been complied with in any city or district, the State superintendent of public instruction shall make immediate investigation, and on satisfactory evidence of the truth of such complaint shall thereupon and thereafter withhold all public money of the State to which such city or district would otherwise be entitled, until all the provisions of this act shall be complied with in said city or district, and shall exercise his power of reclamation and deduction under section nine of article one of title two of the consolidated school law. (Pages 104–106.)

NORTH CAROLINA.

[From Public School Law of North Carolina, 1901.]

SEC. 37. * * * The branches taught in the public schools shall be orthography, defining [reading], writing, drawing, arithmetic, geography, grammar, language lessons, history of North Carolina, including the constitution of the State, history of the United States, including the Constitution of the United States, physiology, hygiene, nature and effect of alcoholic drinks and narcotics, elements of civil government, elements of agriculture, theory and practice of teaching, and such other branches as the State board of education may direct. * * * (Page 25.)

AN ACT to establish a text-book commission (ratified February 8, 1901).

SEC. 2. * * * It shall not be lawful for any school officer, director, or teacher to use any other books upon the same branches other than those adopted by said State text-book commission. Said uniform series shall include the following branches, to wit: Orthography, defining, reading, writing, drawing, arithmetic, geography, grammar, language lessons, history of North Carolina, containing the constitution of the State, history of the United States, containing the Constitution of the United States, physiology, hygiene, nature and effect of alcoholic drinks and narcotics, elements of civil government, elements of agriculture, theory and practice of teaching: * * *. (Page 40.)

NORTH DAKOTA.

[From School Laws of North Dakota, 1901 (page 59).]

SEC. 750. *Branches to be taught in all schools.*—Each teacher in the common schools shall teach pupils, when they are sufficiently advanced to pursue the same, the following branches: Orthography, reading, spelling, writing, arithmetic, language lessons, English grammar, geography, United States history, civil government, physiology, and hygiene, giving special instruction concerning the nature of alcoholic drinks, stimulants, and narcotics, and their effect upon the human system; physiology and hygiene and the nature of alcoholic drinks, stimulants, and narcotics, and their effect upon the human system, shall be taught as thoroughly as any branch is taught, by the use of a text-book to all pupils able to use a text-book who have not thoroughly studied that branch, and orally to all other pupils. When such oral instruction is given as herein required, a sufficient time, not less than fifteen minutes, shall be given to such oral instruction for at least four days in each school week. Each teacher in special school districts and in cities organized for school purposes under special law shall conform to and be governed by the provisions of this section.

OHIO.

[From Ohio School Laws, 1900 (pages 142-3).]

(Bates's Ann. O. Stats., Sec. 4020, 23-25.)

SEC. 1. (*Instruction in the effects of alcoholic drinks and other narcotics made a regular branch of study.*)—The nature of alcoholic drinks and other narcotics, and their effects on the human system, in connection with the various divisions of physiology and hygiene, shall be included in the branches to be regularly taught in the common schools of the State, and in all educational institutions supported wholly or in part by money from the State; and it shall be the duty of boards of education and boards of such educational institutions to make suitable provisions for this instruction in the schools and institutions under their respective jurisdiction, giving definite time and place for this branch in the regular course of study, and to adopt such methods as will adapt the same to the capacity of pupils in the various grades and to corresponding classes as found in ungraded schools; the same tests for promotion shall be required in this as in other branches.

SEC. 2. (*Instruction required in teachers' institutes and teachers' training schools; teachers' certificate must contain; enforcement of law.*)—In all teachers' institutes, also in all normal schools and teachers' training classes which shall hereafter be established by the State, adequate time and attention shall be given to instruction in the best methods of teaching this branch. No certificate shall be granted to any person to teach in the common schools or in any educational institution supported as aforesaid who does not pass a satisfactory examination on this subject and the best methods of teaching the same. It shall be the duty of the State commissioner of common schools to see that the provisions in this section relating to county teachers' institutes, and schools and classes by whatever name hereafter established for training teachers, and the examination of teachers, are carried out; and said commissioner shall each year make full report of the enforcement of said section in connection with his annual report.

SEC. 3. (*Penalty for failure to enforce law; jurisdiction of courts.*)—Any school official, or any employee in any way concerned in the enforcement of the act, who willfully refuses or neglects to provide for or to give the instruction required by this act shall be fined, and shall pay for each offense the sum of twenty-five dollars. Mayors, justices of the peace, and probate judges shall have concurrent

jurisdiction with the common pleas court to try the offenses described in this act, and all fines or penalties collected under this act shall be paid into the general county school fund of the county in which such fine or penalty was collected.

OKLAHOMA.

See District of Columbia.

OREGON.

[From Oregon School Laws, 1901 (pages 53-4).]

TITLE VIII.—*School teachers.*

SEC. 56. 3. * * * It is hereby made the duty of every teacher to give, and of every board of school directors to cause to be given, to all pupils suitable instruction in physiology and hygiene, with special reference to the effects of alcoholic drinks, stimulants, and narcotics upon the human system. Such instructions in physiology and hygiene shall be given orally to pupils who are below the fourth grade, and shall be given by the use of text-books to all pupils above the fourth grade, and such instruction shall be given as thoroughly to all pupils as instruction in arithmetic or geography is given. Each teacher of a public school, before leaving the school register with the school clerk, shall certify therein whether instruction has been given in the school or grade presided over by such teacher as required by this act, and no public money shall be paid over to the treasurer of a district unless the register of such district contains a certificate of the teacher that instruction has been given in physiology and hygiene, with special reference to the effects of alcoholic drinks, stimulants, and narcotics upon the human system, as required by this act.

PENNSYLVANIA.

[From The Common School Laws of Pennsylvania, 1901. Act April 2, 1885, secs. 1-3; P. L., p. 7.]

CCCVII. That physiology and hygiene, which shall, in each division of the subject so pursued, include special reference to the effect of alcoholic drinks and stimulants and narcotics upon the human system, shall be included in the branches of study now required by law to be taught in the common schools, and shall be introduced and studied as a regular branch by all pupils in all departments of the public schools of the Commonwealth, and in all educational institutions supported wholly or in part by money from the Commonwealth. (Pages 299-300.)

CCCVIII. It shall be the duty of county, city, borough superintendents, and boards of all educational institutions receiving aid from the Commonwealth, to report to the superintendent of public instruction any failure or neglect on the part of boards of school directors, boards of school controllers, boards of education, and boards of educational institutions receiving aid from the Commonwealth, to make proper provision in any and all of the schools or districts under their jurisdiction for instruction in physiology and hygiene, which, in each division of the subject so pursued, gives special reference to the effects of alcoholic drinks, stimulants, and narcotics upon the human system, as required by this act; and such failures on the part of directors, controllers, boards of education, and boards of educational institutions receiving money from the Commonwealth, thus reported or otherwise satisfactorily proven, shall be deemed sufficient cause for withholding the warrant for State appropriation of school money to which such district or educational institution would otherwise be entitled. (Page 301.)

CCCIX. No certificate shall be granted any person to teach in the public schools of the Commonwealth or in any of the educational institutions receiving money from the Commonwealth, after the first Monday of June, Anno Domini one

thousand eight hundred and eighty-six, who has not passed a satisfactory examination in physiology and hygiene, with special reference to the effects of alcoholic drinks, stimulants, and narcotics upon the human system. (Page 302.)

Notes by the Superintendent of Public Instruction.

158. Regular daily instruction must be given in physiology and hygiene the same as in other legal branches of study, otherwise the law authorizing and requiring the introduction and study of this branch will not be fairly complied with.

159. Oral instruction, from the necessity of the case, may be given by the teachers in charge of the primary grades of the schools in which the children are too young to make profitable use of text-books on the subject. But suitable books, properly adapted to the age and comprehension of the pupil, must be studied by all scholars who are capable of learning in this way.

160. The subject must be systematically studied as well as taught, which can not be done successfully without text-books in the hands of the scholars. The proper preparation of the lessons assigned to the pupils in the daily exercise of the schools makes the use of text-books absolutely necessary, even if the law did not peremptorily require their general introduction, as it does in this instance.

161. It is the duty of directors and controllers to see that the provisions of the law are fully complied with in all departments of the schools under their official jurisdiction, and in the performance of this duty they ought to have the hearty cooperation of the patrons of the schools. (Pages 302-3.)

RHODE ISLAND.

[From Rhode Island Laws Pertaining to Education, 1900 (page 55).]

CHAP. 60, SEC. 7. The school committees of the several towns shall make provision for the instruction of the pupils in all schools supported wholly or in part by public money in physiology and hygiene, with special reference to the effects of alcoholic liquors, stimulants, and narcotics upon the human system.

SOUTH CAROLINA.

[From The School Law of South Carolina, 1901 (page 22).]

Branches taught.

SEC. 27. It shall be the duty of the county board of education and of the boards of trustees hereinafter provided for to see that in every school under their care there shall be taught, as far as practicable, orthography, reading, writing, arithmetic, geography, English grammar, the elements of agriculture, history of the United States and of this State, the principles of the Constitution and laws of the United States and of this State, morals and good behavior, algebra, physiology and hygiene, and especially as to the effects of alcoholic liquors and narcotics upon the human system, English literature, and such other branches as the State board may from time to time direct.

SOUTH DAKOTA.

[From The Compiled School Laws of South Dakota, 1901 (page 45).]

CHAP. VIII, SEC. 14. *Branches to be taught.*—Instruction shall be given in the common schools of the State in the following branches, in the several grades in which each may be required, viz: Reading, writing, orthography, arithmetic, geography, primary language and English grammar, history of the United States, physiology and hygiene, with special instruction as to the nature of alcoholic drinks and their effects upon the human system, and civil government.

TENNESSEE.

[From Public School Laws of Tennessee, 1901 (pages 19-20); acts 1885, chap. 180.]

SEC. 31. (4) In addition to the branches in which instruction is now given in the public schools of this State, physiology and hygiene, with a special reference

to the nature of alcoholic drinks and narcotics and smoking cigarettes, and their effects upon the human system, shall also be taught as thoroughly as other required branches, and shall be made a regular course of study for all pupils in all schools supported entirely or in part by public money.

(5) No certificate shall be granted to any person to teach in the public schools of this State after the first of January, 1896, who has not passed a satisfactory examination in physiology and hygiene, with special reference to the effects of alcoholic drinks and narcotics and cigarette smoking upon the human system.

TEXAS.

[From School Laws of Texas, 1901.]

SEC. 19. All public schools in this State shall be required to have taught in them orthography, reading in English, penmanship, arithmetic, English grammar, modern geography, composition, physiology and hygiene, including the effects of alcoholic stimulants and narcotics on the human system, mental arithmetic, Texas history, United States history and civil government, and other branches as may be agreed on by the trustees or directed by the State superintendent. (Page 9.) [Art. 3909a, R. S., as amended by the 27th Leg.]

SEC. 69. An applicant for a third grade certificate shall be examined in spelling, reading, writing, arithmetic, English grammar, geography, Texas history, elementary physiology and hygiene and the laws of health, with special reference to narcotics, and school management and methods of teaching. * * * (Page 32.) [Art. 3974, R. S., as amended by the 26th Leg.]

UTAH.

[From School Law of Utah, 1901 (page 32).]

Physiology and hygiene.

CH. VII, SEC. 15. It shall be the duty of all boards of education and trustees in charge of schools and educational institutions supported in whole or in part by public funds to make provision for systematic and regular instruction in physiology and hygiene, including special reference to the effects of stimulants and narcotics upon the human system.

VERMONT.

[From General Laws of the State of Vermont Relating to Public Instruction, 1895 (page 188).]

Studies.

SEC. 683. * * * All pupils shall be thoroughly instructed in good behavior, reading, writing, spelling, English grammar, geography, arithmetic, free-hand drawing, the history and Constitution of the United States, and in elementary physiology and hygiene, with special reference to the effect of alcoholic drinks and narcotics on the human system, * * *.

VIRGINIA.

[From Virginia School Laws, 1901 (pages 60-61).]

97. *Subjects to be taught.*— * * * In teaching physiology and hygiene approved text-books shall be used, plainly setting forth the effects of alcohol and other narcotics on the human system, and such effects shall be as fully and thoroughly taught as other branches of said last-named subjects. * * * (Acts 1899-1900, ch. 132, p. 134.)

WASHINGTON.

[From School Laws of the State of Washington, 1901.]

Subjects to be taught.

SEC. 65. All common schools shall be taught in the English language, and instruction shall be given in the following branches, viz: Reading, penmanship, orthography, written arithmetic, mental arithmetic, geography, English grammar, physiology and hygiene, with special reference to the effects of alcoholic stimulants and narcotics on the human system, history of the United States, and such other studies as may be prescribed by the State board of education. * * * (Page 48.)

Penalties.

SEC. 162. Upon complaint in writing being made to any county superintendent by any district clerk, or by any head of family, that the board of directors of the district of which said clerk shall hold his office, or said head of family shall reside, have failed to make provision for the teaching of hygiene, with special reference to the effects of alcoholic drink, stimulants, and narcotics upon the human system, as provided in this act, in the common schools of such district, it shall be the duty of such county superintendent to investigate at once the matter of such complaints, and if found to be true he shall immediately notify the county treasurer of the county in which such school district is located; and after the receipt of such notice it shall be the duty of such county treasurer to refuse to pay any warrants drawn upon him by the board of directors of such district subsequent to the date of such notice and until he shall be notified to do so by such county superintendent. Whenever it shall be made to appear to the said county superintendent, and he shall be satisfied that the board of directors of such district are complying with the provisions of said section of this act, and are causing physiology and hygiene to be taught in the public schools of such district, as hereinbefore provided, he shall notify said county treasurer, and said treasurer shall thereupon honor the warrants of said board of directors.

SEC. 163. Any county superintendent of common schools who shall fail or refuse to comply with the provisions of the preceding section shall be liable to a penalty of one hundred dollars, to be recovered in a civil action in the name of the State in any court of competent jurisdiction, and the sum recovered shall go into the State school fund; and it shall be the duty of the prosecuting attorneys of the several counties of the State to see that the provisions of this section are enforced. (Pages 89-90.)

WEST VIRGINIA.

[From The School Law of West Virginia, 1897 (page 17).]

Nature and effects of alcoholic drinks must be taught.

11a. I. That the nature of alcoholic drinks and narcotics and special instruction as to their effects upon the human system, in connection with the several divisions of the subject of physiology and hygiene, shall be included in the branches of study taught in the common or public schools, and shall be taught as thoroughly and in the same manner as other like required branches are in said schools, and to all pupils in all said schools throughout the State.

Fine for failing to teach.

II. It shall be the duty of the proper officer in control of any school described in the foregoing section to enforce the provisions of this act, and any such officer, school director, committee, superintendent, or teacher who shall refuse or neglect

to comply with the requirements of this act, or shall neglect or fail to make proper provisions for the instruction required and in the manner specified by the first section of this act, for all pupils in each and every school under his jurisdiction, shall be removed from office and the vacancy filled as in other cases.

Teachers to be examined.

III. No certificate shall be granted to any person to teach in the public schools of the State, after the first of January, anno Domini eighteen hundred and eighty-nine, who has not passed a satisfactory examination in physiology and hygiene, with special reference to the nature and the effects of alcoholic drinks and narcotics upon the human system.

WISCONSIN.

[From School Laws of Wisconsin, 1901.]

Physiology and hygiene.

SEC. 447a. Provision shall be made by the proper local school authorities for instructing all pupils in all schools supported by public money or under State control in physiology and hygiene with special reference to the effects of stimulants and narcotics upon the human system. The text-books used in giving such instruction shall have the joint approval of the State superintendent and the State board of health. (Pages 50–1.)

NOTE BY STATE SUPERINTENDENT.—This section contemplates instruction in physiology and hygiene for all pupils sufficiently advanced in age and scholarship with special reference to the effects of stimulants and narcotics upon the human system. Under the guidance of an approved book, oral instruction in this topic may be given to pupils that are too immature to be benefited by the use of a text-book.

The effectiveness of the work in this branch, so far as its oral presentation is concerned, will depend on the simplicity of the instruction and the good judgment of the teacher in avoiding abstruse and offensive statements. In all instruction given under this law the subject of anatomy should be considered as taking a secondary place. (Page 51.)

Teachers' certificates.

SEC. 450. Every applicant for a certificate shall be examined in the subjects hereinafter mentioned for the several grades respectively as follows: For the third grade, in orthoepy, orthography, reading, penmanship, arithmetic, English grammar, geography, the history of the United States, the Constitution of the United States, the constitution of the State of Wisconsin, physiology and hygiene, with special reference to the effects of stimulants and narcotics upon the human system, * * *. (Page 52.)

For second and first grade certificates, certain additional subjects are named.—(ED.)

WYOMING.

[From School Laws of the State of Wyoming, 1901 (pages 38, 39).]

Physiology and hygiene shall be taught.

SEC. 612. Physiology and hygiene, which shall include in each division of the subject special reference to the effects of alcohol and narcotics upon the human system, shall be included in the branches taught in the common schools of the State, and shall be introduced and taught, either orally or by text-book, in all departments of the public schools above the second primary grade and in all educational institutions supported wholly or in part by the State. (R. S. 1887, sec. 3969.)

Failure to comply with last section—Penalty.

SEC. 613. It shall be the duty of the several county and city superintendents of schools in the State, and of the secretary of the board of directors of all other educational institutions receiving aid from the State, to report to the State superintendent of public instruction any failure or neglect on the part of the board of trustees of any school district, or the board of directors of any educational institution receiving aid from the State, to make proper provision for the teaching of the branches mentioned in the last preceding section in any or all of the schools or other educational institutions under their charge, or over which they have jurisdiction, and such failure on the part of the above-mentioned officers, so reported and satisfactorily proved, shall be deemed sufficient cause for withholding the warrant for the district appropriation of school money to which such school district or educational institution would otherwise be entitled. (R. S. 1887, sec. 3970.)

Examinations required.

SEC. 615. No certificate shall be granted hereafter to any person to teach in the schools of Wyoming who shall not pass a satisfactory examination in physiology and hygiene, with special reference to the effects of alcoholic drinks, stimulants, and narcotics upon the human system. (R. S. 1887, sec. 3972.)

CHAPTER VII.

NECROLOGY FOR 1899, 1900, AND 1901.

UNITED STATES.

1899.

ABBOTT, ALEX. HAMILTON, in Farmington, Me., April 15; born there September 14, 1822; fitted for college at the academy of his native town and graduated at Bowdoin College in 1840. For eight years he was preceptor of Farmington Academy, and principal of Abbott Family School 1849–1865 and 1876 until his death. During this time he served three years as supervisor of schools, Franklin County, and for a like period on the board of trustees of normal schools.

ABBOTT, WILLIAM WHITTLESEY, in Worcester, Mass., July 7; born in Uxbridge, Mass., August 5, 1856; fitted for college at the high school at Yarmouth, Me.; graduated at Yale in 1877, studied further at Sheffield Scientific School and Worcester Polytechnic Institute. He taught at Sheffield (Mass.) High School, having oversight at the same time of the other schools in the town; was principal of the high school and superintendent of all the schools in Naugatuck, Conn: was superintendent of schools of the five towns in Berkshire County, Mass., viz, Sheffield, Richmond, West Stockbridge, New Marlboro, and Egremont. Failing health caused him to retire.

ABBOTT, WILSON SMITH, in Manchester, N. H., February 1; born in Raymond, N. H., July 18, 1826; fitted for college at Hampton Academy and graduated at Dartmouth College in 1852; taught in Westminster and Brattleboro, Vt., 1852–1857. The remainder of his life was devoted to teaching and farming in his native town; 1860–1861 he was commissioner of schools for Rockingham County and president of the New Hampshire Board of Education.

ABELL, ERASMUS DARWIN, M. D., in Farmington, Minn., October 2; born in Lempster, N. H., January 26, 1817; was educated in public schools and by private tutors, and graduated at Dartmouth Medical School in 1839; practiced in Sutton, Lempster, and Rindge, N. H., Chicopee, Mass., and Farmington, Minn. He was superintendent of schools in Lempster two years, and Rindge eleven years.

ALDEN, EBENEZER, in Marshfield, Mass., January 4; born in Randolph, Mass., August 10, 1819; fitted for college at Randolph Academy; graduated at Amherst College in 1839 and at Andover Theological Seminary in 1843. During an early pastorate in Iowa he was on the first board of trustees of Iowa College; occupied the pastorate at Marshfield thirty-five years, and while there conducted the funeral services of Daniel Webster, in accordance with the dying request of the statesman, who had been one of his parishioners.

ALGER, HORATIO, in Natick, Mass., July 19; born in North Chelsea, now Revere, January 14, 1834; attended the public schools of his native town and graduated at Harvard College. Engaged in teaching and newspaper work and achieved wide reputation by his books for boys.

ALLEN, CHARLES FREDERIC, D. D., in Portland, Me., February 9; born in Norridgewock, Me., January 28, 1816; fitted for college at Farmington Academy, and graduated at Bowdoin College in 1839. After a few years' teaching at St. Albans and as assistant principal of the Maine Wesleyan Seminary at Kents Hill, Me., he entered the ministry of the Methodist Episcopal Church. During 1871–1879 he was president of the State College of Agriculture and Mechanic Arts at Orono, Me. Returning to the work of the ministry he was active until past his seventy-ninth year.

AMES, OAKES ANGIER, in North Easton, Mass., September 19; born there April 15, 1829; was the eldest son of Oakes Ames, member of Congress from 1863 to 1873, and president of the shovel manufactory with which the Ames family has been connected for many years. The son participated in the gift of a schoolhouse to North Easton, and with his brother erected a $60,000 townhall.

ANDREWS, Gen. GEORGE LEONARD, in Brookline, Mass., April 4; born in Bridgewater, Mass., August 31, 1828; fitted at Bridgewater Normal School; graduated at West Point Military Academy in 1851; was engaged in engineering work under the Government at Fort Warren, Lake Champlain, and Sandy Hook; served through the war of the rebellion; was a planter in Mississippi; assistant professor of engineering at West Point Military Academy, 1854–55; professor of French at the same institution, 1871–1882, and advanced to the chair of modern languages in 1882. He retired in 1892.

APPLETON, WILLIAM HENRY, in Riverdale, N. Y., October 19; born in Haverhill, Mass., January 27, 1814; was educated in private and public schools and Phillips Academy, Andover, Mass. His father, Daniel Appleton, who had been a dry goods merchant in Haverhill, removed to New York City in 1825, and with his dry goods sold books. William had charge of the latter department from which developed the publishing house of D. Appleton & Co., of which he was for years the head. Their publications began with a small book 3 inches square and half an inch thick. They published among other books Webster's Speller and the American Encyclopædia. Mr. Appleton was an early and persistent advocate of international copyright. He was engaged in many large commercial enterprises, prominent in the church, a member of a number of the prominent clubs. To him is due the erection and endowment of the Appleton Church Home for Orphan Girls at Macon, Ga.

ATKINSON, WILLIAM YATES, in Newnan, Ga., August 8; born in Oakland, Ga., November 10, 1854; graduated at the University of Georgia in 1877; was admitted to the bar in 1878; appointed by Governor Colquitt in 1879, he was solicitor of the Coweta County court three years; a member of the legislature 1886, 1888, 1890, and 1892, being speaker of the house during the last year; governor of Georgia 1894 and 1896. He founded the Georgia Normal and Industrial College for Girls at Milledgeville, and was president of its board of trustees; a trustee of the University of Georgia.

BAILEY, JAMES MONROE, D. D., in Saco, Me., January 6; born in Andover, N. H., March 3, 1817; fitted for college at New Hampton (N. H.) Academical Institute; graduated at Dartmouth College in 1843 and at Andover Theological Seminary in 1846; was pastor at West Buxton, Portland, Saco, Me., Manchester and Somersworth, N. H.; superintendent of schools at Saco, Me., and for twenty years professor of sacred literature and homiletics in the New Hampton Theological Institute.

BAILEY, WILLIAM WALLACE, in Nashua, N. H., June 9; born in Hopkinton, N. H., November 11, 1829; graduated at Dartmouth College in 1854; studied law in the offices of George and Foster, Concord, N. H., and graduated at the Albany Law School in 1856; was a representative in the New Hampshire legislature, 1863–64; trustee of the New Hampshire College of Agriculture and the Mechanics Arts, 1871–1876; director in a number of enterprises; trustee of the State library; member of the Nashua board of education and trustee of the public library of that city.

BARDWELL, ELIZABETH MILLER, in Greenfield, Mass., May 27; born in Colerain, Mass., December 4, 1831; graduated from Shelburne Falls Academy and taught for a number of years, then entered Mount Holyoke and graduated in 1866. She began teaching in Holyoke the next year and continued until 1886; taught algebra, trigonometry, and physics. After 1886 devoted herself to astronomy. She was a member of the Astronomical Society of the Pacific and of the British Astronomical Society.

BARROWS, WALTER MANNING, D. D., at Mackinac Island, Mich., August 10; born in Franklin, Mich., April 12, 1846; fitted for college in the preparatory department of Olivet College and graduated from that college in 1867; studied theology at Yale Divinity School, Union Theological Seminary, and graduated at Andover Theological Seminary in 1873. Under the American Home Missionary Society he worked in Kansas and Salt Lake City, Utah, until 1881; was secretary of the society named 1882–1888; acting pastor at Second Church, Rockford, Ill., 1888–1898, and pastor of Second Church, Greenwich, Conn., 1898 till his death. He was a trustee of Beloit College 1891–1898, and of Rockford College 1889–1899, and was instrumental in organizing the New West Education Commission with its 30 schools and 3 academies.

BARTLETT, HORACE E., in Haverhill (his birthplace), Mass., December 27; graduated at Dartmouth College in 1869; was principal of Lawrence and Haverhill, Mass., high schools for a number of years. Studied law at Boston University Law School, and in 1881 was associated in the practice of law with Congressman Moody; associate justice of the central district court of Essex County, Mass.

BARTON, LYMAN, A. M., M. D., in Willsboro, N. Y., October 20; born in Hebron, N. Y., September 19, 1812; graduated from Dartmouth Medical School in 1839; practiced his profession in Willsboro, N. Y., 1839–1895. He was several times supervisor of schools, president and a founder of the Essex (N. Y.) County Medical Society; life member American Bible Society; member Medical Society of New York, 1867–1899, and also of New York Medical Association, 1884–1899.

BASS, PERKINS, in Peterboro, N. H., October 9; born in Williamstown, Vt., April 30, 1827; fitted at Thetford (Vt.) and Kimball Union Academy, Meriden, N. H.; graduated at Dartmouth College in 1852; taught at Glover, Vt., 1852–53, at Chester (Vt.) Academy, 1853–54; principal Dearborn School, the first district school in Chicago, 1854–55; studied law at the same time. He was admitted to the bar in 1855 and gained a large practice. In 1861–62 he was acting president of the Illinois State Normal University; United States district attorney of northern Illinois under an appointment of President Lincoln in 1865; was removed by President Johnson in 1866; for many years was a member of the board of education of Illinois. Perkins Bass School in Chicago was named in his honor.

BAUGHER, HENRY LOUIS, D. D., in Philadelphia, Pa., February 11; born in Gettysburg, Pa., August 6, 1840; fitted for college in the preparatory department of Pennsylvania College at Gettysburg, and graduated at Gettysburg College i-

1857; taught at Uniontown, Md.; was a tutor in Pennsylvania College, 1857–58; taught in the normal and classical school, Quakertown, Pa., 1859–60; had temporary charge of a boys' school in Washington, D. C. He began the study of theology in the Gettysburg Theological Seminary, continued it in Andover Theological Seminary, being ordained by the Lutheran Church in 1863, and preached in Wheeling, W. Va., Norristown, Pa., and Indianapolis, Ind., until 1869; was Pearson professor of Greek language and literature in Pennsylvania College, 1869–1880; was professor of Greek one year in Howard University, Washington, D. C.; again professor of Greek in Pennsylvania College, 1883–1886. He filled the chair of Greek Exegesis in Gettysburg Theological Seminary, 1870–1874; and was acting professor of dogmatic theology in the same institution in 1883. He was a frequent contributor to the Lutheran press; a director for many years of Gettysburg Theological Seminary, and established the Baugher Lectureship on Christian Worship. He was elected president and professor of Didactic Theology in the Seminary of the United Synod of the South at Charleston, S. C., in 1898, but his health compelled him to decline the position.

BERRY, AUGUSTUS, in Pelham, N. H., October 4; born in Concord, N. H., October 7, 1824; fitted for college at Francestown (N. H.) Academy; graduated at Amherst College in 1851; studied theology at Andover Theological Seminary. He was principal of Limerick (Me.) Academy, 1851–1853; of Lyndon (Vt.) Academy, 1853–1855; of Appleton Academy (now McCollom Institute), Mount Vernon, N. H., 1855–1860. He occupied the pastorate of the church at Pelham, N. H., from 1861 to his death. For a number of years during his pastorate there he was superintendent of the public schools.

BLAIR, JOHN INSLEY, in Blairstown, N. J., December 2; born near Belvidere, N. J., August 2, 1802; iron founder, coal-mine owner, director or builder of twenty-five railroads. He gave an endowment fund of $115,000 to the Presbyterial Academy in Blairstown, founded professorships in Princeton University and Lafayette College, erected Blair Hall at Princeton, besides generously aiding Western colleges.

BLAND, RICHARD PARKS, near Lebanon, Mo., June 15; born in Ohio County, Ky., August 19, 1835. When a boy attended winter school, working on a farm in the summer; was a pupil of the Hartford (Ky.) Academy one year. He taught in Kentucky and Mobile, Ala., in California, Nevada, and Colorado; was admitted to the bar in Utah in 1860. With the exception of one term he represented Missouri in Congress from 1872 until his death. He was specially known for his advocacy of free silver.

BOARDMAN, HENRY ELDERKIN JEWETT, in Chicago, Ill., April 14; born in Danville, Vt., June 21, 1829; graduated at Dartmouth College in 1850; taught in Shelbyville, Tenn., Greensboro, Ala., and Cumberland, Md.; professor of Latin and Greek at the University of Tennessee, Knoxville, 1854–1856; studied law and was admitted to the bar in Tennessee, but removed to Iowa, locating first at Marietta and later at Marshalltown. Among the large number of positions of trust he held was that of trustee of Iowa College.

BONNER, ROBERT, in New York City, July 6; born near Londonderry, Ireland, April 28, 1824; came to this country and began his career in the composing room of the Hartford Courant at $25 a year and "found." In 1851 he bought the Merchants' Ledger, which he conducted successfully till 1887. Princeton College is indebted to him for $19,000 toward its gymnasium fund; the Fifth Avenue Presbyterian Church, of New York, for $130,000, and many philanthropic enterprises were recipients of his generosity.

BOPPE, C. HERM., editor of Amerikanische Turnerzeitung, in Milwaukee, Wis. Died January 12, 1899, in Milwaukee.

BORN, PETER, D. D., in Selinsgrove, Pa., May 29; born in Lycoming County, Pa., July 3, 1820; graduated from Gettysburg College in 1848, and the theological seminary there in 1850; was pastor of the Lutheran Church at Sunbury, Pa., 1851–1859; principal of the classical department of missionary institute (now Susquehanna University), Selinsgrove, 1859–1881; superintendent and first professor in theology in the same institution, 1881–1895, when he became professor emeritus, though continuing to lecture in the theological department.

BOSWORTH, BENJAMIN MILLER, in Warren, R. I., February 9; born there January 17, 1848; received a public-school education, studied law, teaching evening school in the meantime; was admitted to the bar in 1873; trial justice of Warren, 1874–1876; assistant attorney-general, 1882–1885; justice of the fifth district court, 1886–1897, and justice of the supreme court of Rhode Island from 1897 to his death. He was a member of the Warren school committee for twenty years, and acting superintendent for five years.

BOWEN, H. C., in North Fenton, Broome County, N. Y., in July, aged 54 years. He studied abroad, and for twenty years was instructor in the school of mines at Columbia University.

BOYD, DAVID FRENCH, in Baton Rouge, La., May 27; born in Wytheville, Va., in 1835; graduated at the University of Virginia, and began teaching in 1856; was professor of Latin in the Louisiana Military School in 1860; served through the civil war in the Confederate army; was superintendent of the Louisiana Military School ten years; occupied the same position in the military school at Cairo, Egypt; returned home and assumed the presidency of the University of Louisiana, of which he was practically the founder; was chosen president of the Alabama Agricultural and Mechanical College at Auburn; president of the Kentucky Military Institute in 1889; of the Michigan Military Academy at Orchard Lake, 1893, and in 1897 returned to the presidency of the University of Louisiana, where he was also professor of philosophy and civics.

BRINTON, DANIEL GARRISON, M. D., LL. D., D. Sc., in Atlantic City, N. J., July 31; born in Thornburg, Pa., May 13, 1837; graduated at Yale College in 1858, and at the Jefferson Medical College at Philadelphia, Pa., in 1860. After a year's travel and study in Europe he began practice in West Chester, Pa.; served through the civil war as a surgeon; returned to West Chester, but soon removed to Philadelphia. For twenty years he edited the Medical and Surgical Reporter, as well as the Compendium of Medical Science, and many other professional publications. In 1884 he became professor of ethnology and archæology in the Academy of Natural Sciences of Philadelphia, and in 1886 professor of American archæology in the University of Pennsylvania. He was the author of a large number of ethnological and archæological publications, a member of several scientific and philosophical societies, commissioner to the exposition at Madrid in 1892, and a member of the jury of awards at the Columbian Exposition in Chicago.

BROWN, HARRIET A., in New York City, January 13; an instructress at the Santee Normal Training School for Indians at Santee Agency, Nebr., for eighteen and a half years.

BROWN, WILLARD DEMING, at Interlachen, Fla., September 25; born in New Haven, Vt., November 10, 1838; fitted for college at New Haven (now Beeman) Academy and Fairfax (Vt.) Seminary; graduated at Middlebury College, 1866, and at Andover Theological Seminary in 1869; occupied the pastor-

ate at Gilbertville, 1887, until his death. He was a member of the Interlachen school board and a trustee of Rollins College at Winter Park, Fla., from 1889.

BRUCE, CHARLES EMERSON, in Malden, Mass., January 8; born in Hardwick, Mass., February 4, 1819; fitted for college at Shelburne Falls (Mass.) Academy; graduated at Amherst College in 1845, and at East Windsor (now Hartford) Seminary in 1848. From 1848 to 1861 he was engaged in teaching—at Northfield, Mass., Brattleboro, Vt., Keene, N. H., and Ashtabula, Ohio—and for a number of years was school examiner for Ashtabula County.

BRUNER, Rev. Dr. JAS. F., in Washington, D. C., November 19; born in Vincennes, Ind., 1822; graduated at Hanover (Mo.) College; served through the civil war as a surgeon and later entered the ministry of the Presbyterian Church, but resumed the practice of medicine on account of the failure of his voice. For a number of years he occupied the presidency of Pleasant Ridge (Mo.) College.

BRYSON, GEORGE, in Salt Lake City, Utah, December 12; born in London, England, about seventy-two years ago; held the position of instructor in French at an English institution for a number of years and had a large class in that subject in Salt Lake City.

BUTTERFIELD, Consul WILLSHIRE, in South Omaha, Nebr., September 25; born in Mexico, N. Y.; removed early to Ohio and was engaged in teaching: was appointed in 1848 superintendent of public schools in Seneca County, Ohio; later he practiced law in Bucyrus, Ohio, and Madison, Wis. Besides contributing to a large number of city, town, and county histories and biographical publications he edited several historical works.

CAMPBELL, Dr. JAMES, at Hartford, Conn., in October; born in Manchester, Conn., March 14, 1848; received a liberal education, including a two years' course in medicine in Europe. From 1886 he was professor of obstetrics in the Yale Medical School.

CHADWICK, EDMUND, in Eddytown, N. Y., April 7; born in Middleton, N. H., January 12, 1812; fitted for college at Phillips (Exeter) Academy; spent one year at the Dartmouth Medical School; took the first half of the full course at Waterville College (now Colby), and finished at Bowdoin College in 1840; was principal for two years of a classical and mathematical institution at Nashville, Tenn.; began the study of theology at Lane Theological Seminary, and completed his course at Bangor in 1845; preached for a time at Franklin, N. H. He was principal of Starkey Seminary, Yates County, N. Y., 1847–1861, and of Dundee Academy 1863–1867. The remainder of his life was spent upon his homestead at Eddytown, N. Y.

CHICKERING, JOSEPH KNOWLTON, in Burlington, Vt., December 27; born in Portland, Me., July 20, 1846; fitted for college at the high school in his native city; graduated at Amherst College in 1869; was principal of Whittenton Grammar School, Taunton, Mass., one year, and submaster of the high school in that city for a like period; teacher of Latin in the Springfield (Mass.) High School, 1872–73; instructor in English, 1873–1877, and associate professor in the same department in Amherst College, 1877–1885; was professor of rhetoric and English literature in the University of Vermont, 1888–1893. He compiled a great many of the records of the alumni of Amherst College, was engaged in work upon the Century Dictionary of the Century Company, and was otherwise known in the literary world.

CILLEY, B. LONGFELLOW, Exeter, N. H., March 31, 1899; born in Nottingham, N. H., September 6, 1838; graduated at Harvard in 1858; taught in Albany High School a year; in 1859 became professor of ancient languages at Exeter Academy, which position he held until his death.

CLAPP, A. H., D. D., April 27; born in Wellington, Mass., September 1, 1818; studied at the Adams and Fort Hill Grammar and English High School; some years clerk in Boston; fitted for college at Phillips, Andover, and Lester academies; graduated at Yale, 1842; graduated at Andover Seminary, 1845; temporary professor of rhetoric, Middlebury College, 1846; pastor, Providence, R. I., 1877–1885. From 1865 until his death he was editorial secretary and treasurer of the American Home Missionary Society in New York and wrote much for the press.

CLARK, Miss MARIA, December 26, Hallowell, Me., over 92 years of age. Gave her property, including the Maria Clark School, to the city of Hallowell.

CLARKE, F. E., Waukegan, Ill., July 29; born in Williamstown, Vt., March 4, 1828; fitted at Ludlow and Townsend, Vt.; graduated at Dartmouth, 1851; while principal of the academy, 1851–1854, read law; was county and city superintendent of schools, besides serving as banker and judge.

CLARKE, J. M., Syracuse, N. Y., November 30; born in Bethany, Conn., October 6, 1827; graduated at Hobart College, 1847; deciding to enter the Episcopal ministry, was ordained deacon in 1852 and priest in 1853. From 1852–1858 was rector St. Peter's Church, Niagara Falls, N. Y.; from 1858 until his death was rector of St. James Church at Syracuse; was professor of exegesis at Nashotah Seminary, Wisconsin, from 1886 to 1891. He published "Was John Wesley a Methodist?"

CLARKE, RUEL BAXTER, July 14; born in Sunderland, Mass., April 29, 1831; prepared for college at Franklin Academy and Shelburne Falls, Mass.; graduated at Amherst College, 1856; was principal of Hollis Institute, Mass., 1856–1858, also of Westminster and Saxtons River academies, 1858; of Rochester Academy, 1858–1860; of Reading High School, 1860–1865; of Fitchburg High School, 1865–1875. He was superintendent of schools and principal of Central High School of Binghamton, and subsequently principal of the following high schools: Waltham, Mass., 1876–1878; North Brookfield, Mass., 1878–1882, and Brimfield, Mass., 1883–84; Worcester, Mass., until his death.

COLBURN, WILLIAM WALLACE, October 17; born in New Boston, N. H., October 1, 1832; graduated at Dartmouth, 1869; taught at Lawrence Academy, Groton, Mass., 1861–62; Belmont, Mass., 1862–63. Principal of high school, Manchester, 1873–74; Springfield, Mass., 1874–1890.

COLE, EDMUND WHITEFORD, in New York City, May 25; born in Giles County, Tenn., 1832. For forty years was actively identified with the coal, iron, and railroad industries of the South; was colonel in Confederate quartermaster's department; was a member of Methodist Episcopal Church South, director in its book concern and president of its missionary society; founded the Tennessee Industrial School, erecting an auditorium which alone cost $10,000.

COLLETT, JOHN, geologist, Indianapolis, March 15; born in Indiana, 1828; graduated at Wabash College, 1847; in 1870 elected to State senate and served three sessions; 1878, statehouse commissioner, and 1879, chief of the bureau of statistics and geology.

COMINGS, BENJAMIN NEWTON, December 4, New Britain, Conn.; born November 2, 1816, Cornish, N. H. Fitted at Kimball Union Academy; graduated at Dartmouth College, 1842; after graduating he taught in Watertown and Lansingburg, N. Y.; received his M. D. at Castleton Medical College, Vermont, 1847; practiced in Troy, N. Y., Rockwell and New Britain, Conn.; was professor of physiology and chemistry in Connecticut State Normal School, 1853; chairman of board of health of New Britain for twelve years; medical examiner for the coroner twelve years; chairman of the school board ten years;

president of the city, county, and State medical societies; surgeon Thirteenth Connecticut Volunteers, 1861; by General Butler's orders was detached and set about the sanitary reformation of New Orleans. He wrote a text-book of physiology and lectured on that subject and on temperance, having made a special study of the effect of alcohol on the brain.

CONANT, CHESTER COOK, November 6, Greenfield, Mass.; born September 4, 1831, Lyme, N. H. Graduated at Dartmouth 1857; Albany Law School in 1859. Register of probate of Franklin County, Mass., 1863–1870, when he became judge of probate; served long on the school commission of Greenfield and as secretary of the literary association.

CONANT, Mrs. HELEN STEVENS, author, in Brooklyn, N. Y., April 17; born Methuen, Mass., October 9, 1839; married Samuel Stillwell Conant, editor of Harper's Weekly, and assisted in his editorial work; wrote "Butterfly hunters" for children 1868, "German Primer" 1878, "Spanish Primer" 1879.

COOK, WILLIAM H., M. D., in Chicago, Ill., April 14; born in New York City in 1832; 1852, professor of chemistry in Syracuse, N. Y.; 1854–1884, dean of the Medical Industrial Commission; 1891, until his death, was president of Medical College of Surgery, Chicago, and editor of Medical Observer; was author of many medical treatises. Three of his sons became college professors.

COOPER, Mrs. ADA AUGUSTA, composer, in Orange, N. J., September 18; born in Brooklyn, N. Y., 1861; graduated from Shaw University, Raleigh, N. C., where she taught several years, later in Washington, D. C.; assisted her husband in lecturing; composed many hymns, anthems, and carols. Her children's Easter day service was especially noted.

COOPER, Mrs. SARAH BROWN (née Ingersoll, cousin of Robert J.), in San Francisco, Cal., December 10; born in Cazenovia, N. Y., December 12, 1835; graduated at Cazenovia and studied music and modern languages at Troy Female Seminary; going thence as governess in the family of Hon. George Schley, of Augusta, Ga. One year later she was married to Halsey Cooper, a native of New York, and formerly a teacher at Cazenovia. Mrs. Cooper ably assisted her husband as editor of the Advertiser, in Chattanooga, Tenn., until the secession of the State in 1861, when they sought refuge within Federal lines. Subsequently Mr. Cooper returned to Memphis as United States assessor, and here Mrs. Cooper became widely known for her devotion to church and philanthropic work. She was president of an association for the relief of white refugees and sought to aid all suffering, whether of citizens, soldiers, or freedmen. In 1869 the family removed to San Francisco, where Mrs. Cooper found a wide field for the exercise of her rare qualities of intellect and heart. She was a wise philanthropist; a clear thinker, well informed along many lines; a popular and effective writer and speaker. In his first official visit to the Pacific coast in 1871, in his efforts to gain from that remote section full details of education, the Commissioner of Education, who had known Mrs. Cooper in Memphis, secured her efficient services, which are duly noted in reports. Miss Emma Marwedel, who had been aided by him in going to California and establishing a kindergarten, had trained Miss Smith, afterwards Mrs. Wiggin, and now Mrs. Briggs, a well-known authoress and kindergartner, who founded and conducted the Silver Street Kindergarten in San Francisco. Mrs. Cooper, in her work for the Bureau, visited this kindergarten and duly reported it. She became so deeply impressed with its fitness to save hoodlums that she wrote a series of articles for the public press. The public had learned to respond to her philanthropic movements, her Bible class of 300 leading the way. The result was the organization of the Golden Gate Kindergarten Association, in whose work the most eminent philan-

thropists felt it an honor to share. Mrs. George Hearst established three kindergartens and Mrs. Leland Stanford seven. Mrs. Cooper became president and superintendent of the work, but received no remuneration. Her daughter, Harriet, was deputy superintendent, with but moderate compensation. For seventeen years Mrs. Cooper's full annual reports told the story in eloquent language. The association became an effective propaganda, reaching regions near and remote, even the islands of the sea. The annual collections for expenses were large, but an endowment of $400,000 was secured. The annual attendance of pupils was about 4,000, and altogether over 20,000 children passed under Mrs. Cooper's direction. The training school, with Miss Anna M. Stovall at its head—the crowning of this work—is still one of its most efficient features.

COREY, CHARLES HENRY, D. D., educator; Seabrook, N. H., September 5; born in New Canaan, New Brunswick, Canada, December 12, 1834; graduated Arcadia College, Nova Scotia, 1858, Milton (Mass.) Theological Seminary, 1861; entered service United States Christian Commission 1864; became teacher of freedmen; organized schools and churches; 1867, principal, Augusta (Ga.) Institute; in following year became president of Richmond (Va.) Theological Seminary; wrote "Thirty years' labor among the colored people."

COUES, ELLIOTT, A. M., Ph. D., Baltimore, Md., December 25; born in Portsmouth, N. H., 1842; graduated Columbian University 1861, and its medical department 1863; professor Norwich University, Vermont, 1869; 1873–1876, surgeon and naturalist to the United States Northern Boundary Commission and Smithsonian collaborator; associated also with the geographical survey of the Territories; 1877–1887, professor Columbian Medical College; 1883, professor Virginia Medical College; was a member of fifty scientific societies; was elected to National Academy of Sciences in 1877; chairman of the Physical Science Congress in Chicago at the time of the Columbian Exposition; was editor of numerous bulletins; contributor to Standard Natural History and Century Dictionary; author of some 1,000 monographs, including "Key to North American birds" (1876); "Field ornithology," 1874; "Birds of Northwest," 1874; "Fur-bearing animals," 1877; joint author with J. A. Allen, "Monographs North American rodentia;" "Birds of the Colorado Valley," 1878; "Can matter think," 1886; "Handbook of field and general ornithology," 1893, and many other books.

CRACRAFT, Rev. JOHN WESLEY, in Saratoga, N. Y., October 31; born in Cleveland, Ohio, 1827. Graduated at Theological Seminary, Gambier, Ohio, 1849; rector of Kenyon College; author of "Judaizing the teachers." "Great Principles," and other books.

CRAFTS, JOHN J., professor, August 30, 1898; born in Hartwick, N. Y., December 29, 1811. Long a teacher of the classics at Hartwick and Cooperstown, N. Y.

CRARY, Mrs. HORACE H., benefactor, in Denver, Colo., July 7; born in Liberty, N. Y., August, 1833; noted for her charities and for the erection of Crary Hall, an industrial school in Tennessee.

CUTCHEON, SULLIVAN M., in Detroit, Mich., April 18; born October 4, 1833, Pembroke, N. H. Fitted at Pembroke Academy; graduated Dartmouth, 1856; teacher, Ypsilanti, Mich., 1856–1860; superintendent of schools, Springfield, Ill., 1858–1860; studied law; admitted to the bar 1860; practiced in Ypsilanti 1860–1875, and in Detroit 1875–1900; member of the Michigan house of representatives 1860–1864; was speaker 1867–1869; national-bank examiner 1865–1872; president of the committee for revision of State constitution 1873; United States district attorney 1877–1885; also served on commission to secure uniformity of State laws. Was trustee of Olivet College; president of trustees

of Harper Hospital; of Dime Savings Bank, Detroit; of the Ypsilanti Savings Bank; of the J. E. Potts Salt and Lumber Company; of the Moore Lumber Company; also treasurer of the Moore & Whipple Lumber Company.

DABNEY, WALTER DAVID, in Charlottesville, Va., March 12; born in Albemarle County, Va., in 1853; graduate of law school of University of Virginia, 1875; was elected to the Virginia legislature; served four years; was a member of debt commission; also of committees on railroads and internal improvements and on finance; prepared manuscript of governmental regulation of railroads (1889), became legal secretary to Interstate Commerce Commission, 1890. In 1892 was appointed by Judge Gresham, solicitor of State Department. In 1895 left the State Department to take the chair of common and statute law in University of Virginia.

DALY, CHARLES PATRICK, jurist, in North Haven, near Sag Harbor, Long Island, September 19; born in New York City, October 31, 1816. Was admitted to the bar in 1839; in 1844 appointed judge of common pleas and remained in office forty-two years. During this period he rendered many important decisions, becoming famous as attorney and judge. Was for a long period president of the American Geographical Society and author of many valuable books.

DARCHE, Miss LOUISE, educator, in London, England, June 1; born in Ontario, Canada, 1864; graduated from Bellevue Training School for Nurses in New York City; 1888 was appointed superintendent of training school for nurses on Blackwells Island; was a woman of great energy and executive ability, and considered one of the best trained nurses in the country.

DAVIS, GEORGE ROYAL, director general of the World's Columbian Exposition, 1890–1894; died in Chicago, Ill., November 25; born in Palmer, Mass., June 3, 1840. He fitted for college at Williston Seminary; enlisted in the Eighth Massachusetts Volunteers in 1861; served through the civil war; became captain of the Eighth Massachusetts and major of the Third Rhode Island Cavalry; served through the Indian campaigns of 1868–69. In 1871 was in business in Chicago; was elected to Congress in 1876 and served three terms. As director-general of the Columbian Exposition he promoted the interests in many ways of the educational features of the exposition.

DENISE, JACOB CONOVER, at Omaha, January 20. Received his medical degree from the Jefferson Medical College; in 1861–1863 was appointed assistant surgeon of the Twenty-seventh Ohio Volunteer Infantry; appointed surgeon of same regiment 1863–64; appointed acting surgeon, United States Army, 1864–65; was chief medical officer of Ohio State Soldiers' Home; for twenty-five years physician at State Deaf and Dumb Institute; was appointed surgeon for United States Pension Office, 1874; was one of the originators of the Omaha Medical College, where he was lecturer on ophthalmology and also dean of the faculty.

DICKINSON, W. C., in Evanston, Ill., March 12; born in Massachusetts, January 26, 1827; fitted for college at Auburn Academy, New York; graduated at Bowdoin, 1848; taught next year at Monson Academy; was tutor in Amherst College, 1851–52; was two years in Union Theological Seminary and graduated from Andover Seminary in 1853; was professor of languages in Lake Forest University.

DIKE, SAMUEL FULLER, January 9; born at North Bridgewater, Mass.; fitted for college in same town; graduated at Brown University, 1838; taught several months at Yarmouth, Mass.; became pastor of the New Jerusalem Church, Philadelphia, June 7, 1840; for twenty years was superintendent of schools at Bath, Me.; for twelve years was trustee of Maine State College of Agriculture and Mechanic Arts at Orono, and was also for a number of years member of

examining committee, Bowdoin College; received the degree of D. D. from Bowdoin in 1872; was prominent in the councils of the Maine Historical Society and was for some time its president.

DINGLEY, NELSON, LL. D., in Washington, D. C., January 13; born in Durham, Me., February 15, 1832; spent his boyhood on his father's farm; graduated at Dartmouth, 1855, having prepared in the district and high schools and studied at Waterville eighteen months; began to teach when 17 years of age and continued each winter until 1851. In 1852 he began the study of law at Auburn, whither he had moved with his family, and was admitted to the bar in 1856, when he became editor of the Lewiston Journal, which position he retained until his death. In 1881 he was elected to the National House of Representatives (to succeed Hon. William P. Frye, who had been elected to the Senate), and was reelected to succeed himself until his death. He served with distinction on the Committees of Banking and Currency and the Merchant Marine, and served as chairman of the latter and of the Ways and Means Committee. He was a conspicuous advocate of Christian temperance and of all measures seeking the elevation of the people; was watchful for the interests of the Bureau of Education; served as a member of the Joint High Commission over the questions between Canada and the United States. His death was deeply felt throughout the country.

DOUGLAS, WILLIAM KIRTLAND, in St. Francisville, La., December 19, 1898; born in New Haven, Conn., May 29, 1829; graduated from Yale in 1851; began the study of law while teaching in New Haven; gave up the law to enter Episcopal Church; studied theology while doing work among mill operators at Thompsonville, Conn.; became rector of St. John's Church in Warehouse Point, Conn.; in 1855 his health failed and he removed to Waterproof, La., where he organized a church; 1860-1863, president of Jefferson College, near Natchez, Miss.; was superintendent of schools in Natchez; had charge of Raymond Seminary, Miss.; 1871, organized at Dry Grove, Hinds County, a training school for candidates for the ministry.

DUGGAN, JAMES, bishop, in St. Louis, Mo., March 29; born in Dublin, Ireland, 1825; in 1847 was ordained and appointed superior of the St. Louis Theological Seminary, in which he was also a professor.

DUNGAN, JOHN, in Portsmouth, December 13; born in Strafford, N. H., March 26, 1814; taught school in Barrington, N. H., and in New Castle. Taught school in Portsmouth, 1845–1872, during which time he was absent from his post two weeks only, and this on account of illness.

DUNTON, LARKIN, LL. D., educator, in Allston, Mass., October 30; born in Concord, Me., July 22, 1828; graduated at Waterville College, 1855; was admitted to the bar, Augusta, Me., but soon retired from the practice of law and was called to teach at Bath, Hallowell and Lincoln Academy, and for seven years was principal of Bath High School; April 1, 1867, was appointed submaster of Lawrence School, Boston, and the next year was made principal. In 1872 he was chosen master of normal school in that city and so continued until he retired September 1, 1899. He edited a memorial volume of Dr. John D. Philbrick, and published several books: A Normal Course in Spelling, Stories of Child Life, The World and its People, Series of Geographical Readings, and The Young Folks Library. He gave shape to the normal training of the city system.

EATON, DORMAN B., in New York City, December; born in Hardwick, Vt., June 27, 1823; graduated from the University of Vermont in 1848 and from Harvard Law School in 1850, and same year was admitted to the New York bar and

became partner of Judge William Kent: gave his active life to the great work of political reform, for which he was violently assailed; studied the subject of civil service in Europe, 1866, and again in 1870–1873; was appointed by President Grant chairman of the first Civil Service Commission and served until Congress in 1882 failed to appropriate money for it: President Arthur appointed him again chairman under the Pendleton act of 1883, and he continued to serve until 1885, when he resigned: three months later was recommissioned by President Cleveland. He suggested to President Hayes that the story of England's experience ought to be published for the benefit of the American people. There being no appropriation for such a work, Mr. Eaton assumed the expenses, and after another visit to Europe to freshen his information he published his book, Civil Service in Great Britain and its Bearing on American Politics, which did much to educate the public mind on the subject of civil service reform. He delivered many addresses and wrote many articles on the subject. The first civil service reform association was organized at his house in 1874. He is understood to have drawn the Pendleton act. He was an excellent lawyer and independent in politics.

EDWARDS, Rev. HENRY, in Hagerstown, Md., February 25; born in New Haven, Conn., December 31, 1821; graduated at Yale, 1841; graduated at General Theological Seminary; was director in various places and taught for three years in Cumberland, Md., and later taught a select school at his residence. He was highly esteemed even by those who differed with him.

ELBERT, SAMUEL H., LL. D., in Galveston, Tex., November 27; born in Logan County, Ohio, 1833: graduated Wesleyan University; supported Mr. Lincoln; was member of Nebraska legislature; appointed secretary of the Territory of Colorado and later governor; later devoted his attention to the interests of irrigation and education; was judge.

ELWELL, JAMES WILLIAM, philanthropist, New York, September 2; born in Bath, Me., August 27, 1820; became merchant and partner with his father in New York. His benefactions are believed to have amounted to over $3,000,000.

ERNSBERGER, Mrs. MARY ANNIN, missionary, in Gulbarga, India, September 30; born in Newark, N. J., February 18, 1864; was daughter of Rev. George Hughes; graduated Mount Holyoke Seminary, 1866; became missionary to Madras, and with her husband founded the Madras orphanages.

ETHERIDGE, JAMES, M. D., gynecologist, in Chicago, February 10; born St. Johnsville, N. Y., March 20, 1844; was professor of gynecology at Rush Medical College, and became president, respectively, of the medical society and of the gynecological society.

EUSTIS, JAMES B., diplomat, in Newport, R. I., September 9; born New Orleans August 27, 1834; educated in Brookline, Mass., and Harvard Law School; practiced law; Confederate staff officer; after the war served in the State legislature. In 1876, elected United States Senator for an unexpired term; was a professor of civil law in the University of Louisiana, until 1884, when he was again sent to the United States Senate; was a member of the Committee on Foreign Relations. In March, 1893, he was appointed minister to France; had charge of the Consul Waller case; practiced law in New York; translated the Institutes of Justinian and Guizot's History of Civilization.

FAIRBAIRN, ROBERT BRINCKERHOFF, D. D., LL. D., educator, in Brooklyn, N. Y., January 27; born in New York City, May 27, 1818; graduated at Washington, afterwards Trinity College, Hartford, Conn., 1840; studied at General Theological Seminary, New York City, and became a rector of a church in Troy, N. Y.; 1853 became principal of Catskill Academy; ten years later, professor of mathematics in St. Stephen's College, Annandale, N. Y., where he was

subsequently president twenty-eight years. He raised the institution from a primary school to a high grade with a property worth $500,000, and retired in 1891. He was the author of several books.

FANCHER, BELA, in Homer, Mich., November 29; born at Verona, Oneida County, N. Y., June 11, 1807; graduated at Middlebury College, 1831; at Andover Theological Seminary, 1835, teaching an intermediate year at Sheldon Academy, Southampton, Mass.; went from Andover under the direction of the Home Missionary Society to Ohio, and was located six years at Troy, in that State; was at North Bergen, N. Y., six years and at Oakland, N. Y., six years; was for two years principal of Carey Collegiate Institute, Oakland. Subsequently removed to Barre, Vt., where he remained until death, engaged either as pastor, principal of an academy, or superintendent of schools.

FARNSWORTH, HIRAM WARNER, at Topeka, Kans., July 26; born at Brattleboro, Vt., October 13, 1810; graduated at Williams, 1840; principal of a female academy, New London, Conn., fifteen years. Removed to Topeka, Kans., where he was mayor, State senator, and postmaster.

FARRAND, HARRIET AUGUSTA, authoress, in Chicago, Ill., May 19; born in Bridport, Vt., June 7, 1832; removed to Ypsilanti, Mich., where she graduated from the normal school, 1857. She became known as the author of short stories while acting as associate editor of the Advance. She also wrote books for children.

FEARN, JOHN WALKER, at Hot Springs, Va., April 8; born in Huntsville, Ala., January 13, 1832; graduated at Yale, 1851; admitted to the bar in Mobile in 1854; became secretary of United States legation, Brussels, and in 1856–1858 held the same position in Mexico; rendered the Confederacy diplomatic and staff service, and after the war became professor in the University of Louisiana; in 1885 minister to Greece; in 1891 chief of the department of foreign affairs at the Columbian Exposition, Chicago, Ill.

FIELD, STEPHEN JUDSON, LL. D., jurist, in Washington, D. C., April 9; born in Haddam, Conn., November 4, 1816; was grandson of Capt. Timothy Field, of the Revolutionary army; son of the Rev. Dr. D. D. Field, and brother of David Dudley, Cyrus West, and Henry Martyn Field; at 13 went with his sister and her husband, Rev. Josiah Brewer, to Smyrna, where he learned the Greek, Turkish, French, and Italian languages; shared in relief work during the cholera epidemic; graduated at Williams in 1837; admitted to the bar in 1841. In 1863 Mr. Lincoln appointed him justice of the Supreme Court of the United States. In April, 1897, he tendered his resignation, to take effect December 1, following; he was at the time the oldest member of the court, both in age and length of service, having held the office for over thirty-four years.

FLOWER, ROSWELL P., LL. D., banker and philanthropist, in Eastport, Long Island, N. Y., May 12; born in Jefferson County, N. Y., August 7, 1835; worked at farming and in mill, attending district school until the age of 14, when he became a clerk in a local store; at 16 graduated from high school and spent two years in teaching. Was elected to Congress several terms and was governor of New York. Made generous gifts to charity and education.

FORD, DANIEL SHARP, publisher, in Boston, December 24; born in Cambridge, Mass., April 5, 1822; learned the printer's trade and was at one time a member of the firm of Olmstead & Ford, publishers and editors of the Baptist Weekly, then known as the Christian Watchman and Reflector. In 1857 the firm bought the Youths' Companion, of which Mr. Ford became the only owner, using as a firm name, "Perry, Mason & Co." His editorial and business supervision was constant and vigorous, but his name was not published. His charities were quiet, but most extensive.

FOSTER, CASSIUS G., jurist and philanthropist, Topeka, Kans., June 21; born in Webster, N. Y., January 22, 1837; admitted to the bar 1859 and settled in Atchison, Kans; 1863 served in the State senate; mayor of the city, and from March, 1874, to 1899 was United States judge for the district of Kansas. Founded the well-known Foster Humane Society.

FURBECK, Rev. PHILIP, at St. Johnsville, N. Y., July 23; born in Guilderland, N. Y., December 29, 1832; graduated at Union College in 1854; was principal of the Troy Academy for a year, then professor in Scholarie Academy three years; afterwards devoted himself to the ministry.

FURBER, Rev. DANIEL L., LL. D., in November 20; born Sandwich, N. H., 1820; graduated Dartmouth, 1843; gained the means for his education by teaching music; graduated at Andover Theological Seminary, 1847; was joint author with Professors Phelps and Park of Hymns and Choirs, and issued various other publications.

GALBREATH, LOUIS H., in New York City August 14; graduated at the State normal school in Normal, Ill.; later graduated at Cornell University, also pursued graduate work at Cornell and spent a third year at Columbia preparing for his Ph. D. degree. In 1893 was appointed principal of the training department of the State normal school, Winona, Minn. Held this position three years, then accepted chair of psychology and education at Normal, Ill.; in 1897 occupied the chair of psychology and child study at Teacher's College of Buffalo University; in March, 1899, was elected principal of the training department of the new State normal school at Charleston, Ill.

GARDNER, SAMUEL SPRING, in Washington, D. C., March 2; born January 9, 1831, at Cambridgeport, Mass.; prepared for college at Phillips Academy, Andover, Mass.; graduated from Bowdoin, 1855; was principal of Bluehill Academy two years, and taught history and literature in Mount Pleasant Military Institute, Sing Sing, N. Y.; studied theology and graduated from Bangor Seminary, 1861; was pastor at Bellows Falls, Vt., 1864–1872; was chaplain United States colored infantry. At close of war was superintendent of freedmen's affairs, Alabama. Studied law, was admitted to the bar, and became member of the constitutional convention, 1867.

GEIGER, HEZEKIAH RUEBUSH, Ph. D., educator, in Springfield, Ohio, July 18; born Greencastle, Pa., January 10, 1820; graduated at Pennsylvania College, Gettysburg, Pa.; elected professor Wittenberg College, which position he retained until 1873; active in original investigations; published his Hawaiian trip, 1883; accepted a place in the United States Geological Survey; was for a time editor of the Lutheran.

GILLETT, EDWARD BATES, LL. D., in Westfield, Mass., February 3; born at South Hadley Falls, Mass., February 3, 1817; graduated at Williams, 1839; member of the State senate, 1852; district attorney for the counties of Hampden and Berkshire, 1856–1870; trustee of Amherst and Smith colleges, of Hartford Theological Seminary, and of Westfield Athenæum and Academy, and corporate member of American Board of Missions from 1877.

GODDARD, Mrs. MARY T., benefactor, September 15; gave Tuft's College $60,000; Goddard Seminary, Barre, Vt., $5,000; Westbrook Seminary, Portland, Me., $5,000; to the Universalist general convention of New York, $5,000; to that of Massachusetts, $2,000; to the Newton Society, $3,000; which, with other gifts, amounted to $140,000.

GOSMAN, Rev. ABRAHAM, in Lawrenceville, N. J., January 5; born in Danby, N. Y., July 25, 1819; graduated at Williams, 1843, and at Princeton Theological Seminary, 1847; instructor in Hebrew at the seminary, 1850–51; pastor, 1851–1895, at Lawrenceville; selected to complete Dr. Alexander's "Babylonish Captivity," and translated portions of the Scripture and of "Lang's Commentaries."

GRAVES, JOSEPH A., Ph. D., in Hartford, July 28; born Springfield, Mo., September 21, 1849; was two years teacher of high schools; 1874–1878 tutor in Latin, Yale University; two years principal of the Skinner School; 1881 became principal of South School, Hartford, the largest grammar school in Connecticut; published "Graded Speller" and "School Hymnal."

GRAY, NAPOLEON, in Brooklyn, February 25; born January 12, 1843, at Naples; graduated at Bowdoin, 1867; taught in Brighton Academy and later in a private school in Hohokus, N. J., seven years.

GRIER, Rev. WILLIAM M., D. D., in Duewest, S. C.; born February 11, 1843, near Clover, S. C.; graduated at Erskine College, 1860; 1861 enlisted in Confederate service, lost a leg at Williamsburg, Va.; studied theology and licensed to preach in 1866; became a successful pastor, and September 16, 1871, the Associate Reformed Synod elected him president of Erskine College; his administration was highly approved and he was successful in raising money and securing property to the college.

HALE, EDWIN MOSES, M. D., in Chicago, Ill., January 15; nephew of Sarah Josephine Hale; followed the printer's trade several years; graduated at the Homeopathic College, Cleveland, 1859; practiced twelve years in Jonesville, Mich.; 1863, professor in Hahnemann College, Chicago; editor of journal and publisher of several homeopathic works.

HALLOWELL, H. CLAY, Sandy Spring, Md., August 11; born in Alexandria, Va., June 16, 1829; graduated at Yale, 1852; for three years associated with his father in teaching; 1828–1892 conducted the Rockland school for girls.

HARLAN, JAMES, United States Senator, in Mount Pleasant, Iowa, October; born Clarke County, Ill., 1820; graduated from Indiana Asbury University, 1842; superintendent of public instruction in Iowa, 1847; president of Iowa Wesleyan University, 1853; elected to the United States Senate in 1855; chairman of the Committee on Public Lands; seat declared vacant on technicality in 1857; in a month reelected for the term ending 1861; was a delegate to the peace convention; reelected to Senate for the term ending 1867; resigned in 1865, and became Secretary of the Interior under Mr. Lincoln; was again elected to the Senate in 1866–1869; chosen president of the University of Iowa after leaving the Senate; was editor of Washington Chronicle; 1882–1885 was presiding judge of Alabama Court of Claims.

HARRIS, ROBERT P., horticulturist, in Philadelphia, Pa., February 22, 1899; spent large sums in the endeavor to educate the people in raising melons and cucumbers; prolific writer and editor of text-books.

HARRIS, Rev. SAMUEL, in Litchfield, Conn., June 25; born in East Machias, Me., June 14, 1814; graduated at Bowdoin College, 1833; Andover Seminary, 1836, engaged in teaching until 1839; was pastor at Conway and Pittsfield, Mass., 1855; for twenty-two years was professor in Bangor Seminary; 1867–1871, president of Bowdoin College; 1871–1895, professor of theology at Yale Divinity School.

HART, LEVI WELLS, in Ramsey, N. J., February 23; born in New Britain, Conn., June 7, 1825; graduated at Yale, 1846, and at Union Theological Seminary, 1852; and in 1853 became rector of the College Grammar School, New York, and so continued until a week before his death, when he became professor in Pratt Institute.

HARTLEY, Rev. ISAAC SMITHSON, D. D., in Great Barrington, Mass., July 22; born in New York City, 1830; graduated New York University and Andover Seminary, 1856; active in sanitary commission; pastor and lecturer, Utica, N. Y., 1871; founder of Vetter lectureship at Rutgers College, New Brunswick; published several books.

HARTWELL, SHATTUCK, in Boston, November 3; born in Littleton, Mass., February 9, 1822; graduated at Harvard College, 1844; law school, 1846; tutor in Latin at Harvard six years.

HAYLEY, HERMAN WADSWORTH, educator, in Boston, Mass., September 24; born in West Concord, N. H., 1864; graduated at Amherst, 1887; continued his studies abroad and received Ph. D. from Harvard, where he was retained as instructor in Latin, when he became member of the faculty of Wesleyan University. He published "Alcestis of Euripides," a Greek play, and other works.

HAYNES, REV. LORENZO, in Waltham, Mass., June 6; born in Waltham, April 15, 1820; taught in Lonsdale, R. I., Leicester, and Lowell, Mass., and Rochester, N. Y.; served six years as librarian at Waltham, Mass.; held pastorates in several churches in Maine and Massachusetts.

HAZELTINE, REV. HENRY MARTYN, Jamestown, N. Y., March 15; born there August 28, 1831; graduated at Williams, 1852; taught in Cherry Valley and Jamestown, N. Y., and eastern Pennsylvania, and New Brunswick, N. J., studied theology at Union Seminary, New York, and served as pastor in a number of churches until his health failed.

HEIN, JOHN, philanthropist, New York City, June; born in Kissingen, Bavaria, March 11, 1818; was a cripple almost from birth, and in constant pain; learned the tinsmith's trade and accumulated an estate of $60,000; gave German hospitals $45,000 and bequeathed to them the remainder of his property. Always on the alert to relieve suffering.

HILL, OSMOND C., in Kansas, June; born in Cuyahoga County, Ohio, December 31, 1839; graduated at Williams, 1876; soldier, Forty-second Ohio; teacher, Columbus, Ohio; two years professor at Oberlin; eight years at Hiram College. After graduation established Normal School, Oregon, Mo. In 1883 he resigned to become superintendent of schools at Hiawatha, Kans., where he served five years.

HOPKINS, ABEL G., Ph. D., D. D., educator, in Clinton, N. Y., July 27; born in Avon Springs, N. Y., December 5, 1844; graduated at Hamilton College, 1866, at Auburn Theological Seminary, 1869; was a popular pulpit orator; was professor in Hamilton College from 1869 until his death.

HOUSE, SAMUEL R., in Waterford, N. Y., August 13; born at Waterford, N. Y., October 16, 1817; graduated at the Troy Polytechnic Institute and took a degree at Dartmouth; entered Union College as junior and graduated with honor; taught in an academy in Virginia; was principal of Weston Academy, Connecticut; graduated in 1845 from New York College of Physicians and Surgeons; while editing Knickerbocker Magazine was appointed missionary physician in Siam; worked heroically through two fearful pestilences in Bangkok; wrote much on medicine and missions.

HOVEY, RICHARD, poet, in New York City, February 24; born in Normal, Ill., May 4, 1864, where his father, Gen. Charles E. Hovey, was principal of the normal university before he entered the Army; graduated at Dartmouth College, 1885. His poetical promise appeared before graduation. After graduation, before his course of life was fixed, he entered upon the study of theology. Subsequently he went to England, and while abroad became deeply interested in contemporary French and Belgian poets and published a translation of Maeterlinck. Thenceforth he gave himself up to literature and soon gained distinction both as a poet and critic. In 1889 he was appointed professor of English at Barnard College, which position he held until his death. He was associated with Bliss Carman in the authorship of Vaga-

bondia, and later also with him in More Songs from Vagabondia, and also Last Songs from Vagabondia. His published works comprise The Laurel, Launcelot and Guinevere, Seaward, an elegy on the poet Parsons, Along the Trail, The Quest of Merlin, The Marriage of Guinevere, The Birth of Galahad, and Taliesin, which last is considered his most finished effort. By his death Stedman says, "America has lost one of her best-equipped lyrical and dramatic singers."

HOWARD, ABEL TRUMAN, February 25; born November 1, 1830, at West Hartford, Vt.; graduated from Dartmouth, 1861; was principal of high school at Walpole, N. H., until 1865.

HOWELL, GEORGE ROGERS, in Southampton, L. I., June; born in the year 1833; graduated from Dartmouth, 1854; graduate of Princeton Seminary; was pastor a year and a half of Presbyterian Church, Moscow, N. Y.; wrote a volume on Early History of Southampton, with genealogies, issued in 1866; 1869–1872, principal of a boys' school, Mount Morris, N. Y.

HUBBARD, Prof. ELI ANDREWS, in Holyoke, Mass., August 8; born in Hinsdale, Mass., December 11, 1814; graduate of Williams College, 1842; taught one year in the academy at Worthington, Mass.; one year was tutor in college; taught two years at Lee and one year at Northampton; was connected also with Williston Seminary, East Hampton; in 1865 was superintendent Springfield public schools; 1875–1882 was agent of State board of education; later he became identified with the educational work in D. L. Moody's school at Mount Hermon.

HUNTER, Rev. MOSES HOGE, in La Plata, Md., January 9; born Martinsburg, Va., October 5, 1814; graduate of Yale, 1836; studied theology in Princeton Seminary and Yale Divinity School; was ordained to the ministry, 1840; 1847 established a boarding school for boys on Grosse Isle, Mich., which he maintained until the beginning of the civil war; was chaplain of the Third Pennsylvania Cavalry; taught in a girls' boarding school at Washington, D. C., 1878.

HYDE, Rev. CHARLES MCEWEN, in Honolulu, October 5; born in New York City, June 8, 1832; graduate of Williams, 1832; studied theology at Union and Princeton; was ordained 1862; was pastor Goshen, Conn., Brimfield, Mass., and Haverhill, Mass. In 1875 the prudential committee of the American board sent him to Hawaii to take up missionary work there. In 1877 he organized the North Pacific Missionary Institute, of which for twenty-two years he was principal; was trustee for several educational institutions on the island; was one of the three men to whom was intrusted the care and distribution of the large fortune left by Mrs. Bishop for the Kamehameha schools. He wrote a history of Brimfield and the town of Lee. He also wrote, with President Bartlett, of Dartmouth College, an extended account of the work of the Hawaiian mission.

JACOBS, SAMUEL ALLEN, in Dudley, Mass., April 12, 1899; born in Dudley, Mass., February 4, 1869; graduate of Amherst, 1891. Taught in Iowa City Academy 1892–93; in Highland Military Academy, Worcester, Mass., 1893–94. In 1894 was appointed principal of the high school and superintendent of schools at Stafford Springs, Conn., and continued in that position until his death.

JENNINGS, ROSCOE GREEN, M. D., Ph. D., at Little Rock, April 5; born June 11, 1833, at Leeds, England; graduated in medicine, Bowdoin, 1856; was one of the founders of the medical department of the Arkansas Industrial University; surgeon in Union Army; for many years professor in Western University of Pennsylvania; principal of high school in Pittsburg, and wrote on subjects of geology.

JOHNSON, ELLEN CHENEY, in London, England, where she was to have read a paper before the International Council of Women as an American representative. She was born in Athol, Mass., June 20, 1819, the daughter of Nathan and Rhoda Cheney, and was the widow of J. E. Johnson. She obtained her training in the common schools of New Hampshire and in Francestown Academy. During the civil war she engaged in soldiers' relief work in the Sanitary Commission, and after the war did much for soldiers' widows and orphans, and while in the work became impressed with the need of a separate correctional institution for women. Her studies and experiences enabled her to master with special success the motives, conditions, and methods by which women in misfortune from any cause may be restored to normal activity. Her ideas were approved and the public responded to her appeals. The Woman's Prison at Sherborn was the result. She served on the board of prison commissioners, but was appointed superintendent in May, 1884, and continued to improve and enlarge the prison until her death, rendering Sherborn a study for all penologists.

JOHNSTON, WILLIAM PRESTON, in Lexington, Va., July 16; born in Louisville, Ky., January 5, 1831; graduate of Yale, 1852, and at Louisville Law School, 1853; served as colonel and aid to Jefferson Davis in the Confederacy; was professor of history and literature at Washington and Lee University, 1866–1877, and president of Louisiana State University, 1880–1883; became president Tulane University, New Orleans, and so continued until his death. He published the life of his father, Gen. Albert Sydney Johnston, and several other works of merit.

KAPIOLANI, dowager Queen of Hawaii, in Honolulu June 24; born in Honolulu, December 31, 1831; was descended from a long line of chiefs on the island and was granddaughter of the last king of the island; was devoted to charitable work and founded the Kapiolani Home for Leper Girls.

KEENER, JOHN ORMON, D. D., in Greensboro, Ala., December 31, 1898; born in New Orleans, August 17, 1854; graduate of Southern University, Greensboro, Ala., 1874; 1894, was elected president of his alma mater; was a member of the last ecumenical conference of Methodism.

KELLOGG, SAMUEL HENRY, in Lahore, India, May 2; born Quogue, Long Island, N. Y., September 6, 1839; graduate of Princeton, 1861, and also graduate of Princeton Seminary; was sent to India by the Presbyterian board; 1865–1872, was stationed at Futteghur, and 1872–1876 at Allahabad, where he taught theology in a synodical school; returned to the United States in 1877 and became pastor of Third Presbyterian Church in Pittsburg, Pa., and professor in Western Theological Seminary; 1876–1892, was pastor St. James Square Presbyterian Church, Toronto, Canada; returned as missionary to India, 1892, and applied himself to translating the Bible into Indian language; was author of a number of books; was killed by being thrown over a precipice while making a tour of the Himalaya Mountains on his wheel.

KEMPER, DELAWARE, A. M., in Alexandria, Va., June 30; born in Warrenton, Va., August 25, 1833; was educated at the University of Pennsylvania; entered the Confederate army in 1861; after the war became professor in Hampden-Sidney College, where he remained for seventeen years, when he became professor of Citadel Academy, Charleston, S. C., and later president of Adger College, South Carolina; was consul at Amoy, China, and on returning took charge of the Alexandria Times.

KENDALL, EZRA OTIS, LL. D., educator in Philadelphia, Pa., January 5; born in Wilmington, Mass., May 5, 1816; received his early education at Woburn, studied with his half brother, Sears C. Walker, a noted mathematician, and

was appointed professor of theoretical astronomy and mathematics in the high school of that city in 1838. He organized and equipped an astronomical observatory, in which he made constant study of the heavens for many years.

KIES, Miss MARIETTA, Ph. D., Pueblo, Colo., July 20; born December 31, 1853, at Killingly, Conn. She secured an education by great effort, her studies being interrupted by work in a factory and sometimes by teaching to earn money. She was both teacher and pupil in the high school at Danielson, to whose principal, Mr. Sidney B. Frost, she was specially indebted. In 1878 she entered Mount Holyoke Seminary, but was compelled to teach a portion of the time, and completed the course in two years, teaching there immediately after her graduation. In 1882–83 she taught at Putnam, Conn., and later at Colorado College, Colorado, returning to Mount Holyoke in 1885, where she was professor for six years and a portion of the time principal. During this period she was able to avail herself of the private and friendly instruction of Dr. W. T. Harris. Her interest in his instruction induced her to gather from his scattered writings extracts which were published under the title "Introduction to the study of philosophy." She was the first woman to receive the degree of Ph. D. from the University of Michigan. In 1890–1892 she was professor at Mills College, Oakland, Cal. Her university thesis, under the title of "The ethical principle," was published. In 1892–93 she studied at Leipzig and Zurich. She then taught the high school at Plymouth, Mass., where she published her Institutional Ethics. She was then professor for three years in Butler College of Indiana. She was a lady of attractive appearance, culture, and fine scholarly attainments.

KRAUS, Prof. JOHN, in New York City, March 4, 1899; born in Nassau, Germany, February 2, 1815; studied in the common schools of his birthplace and at Idstein. He early mastered the principles and methods of Froebel's Kindergarten. In 1851 he came to America, where he struggled against many obstacles to realize his educational ideals. In 1870 he was employed by the Bureau of Education at a mere nominal compensation. Here he was ever on the alert to bring to the attention of the Commissioner whatever in the tide of information coming to the Bureau might bear upon the desirableness of kindergartens in America. Chiefly through his services the Bureau became a center of information and of advice in respect to this work. Professor Kraus subsequently married Miss Maria Boelte, a pupil of Froebel, who had established a kindergarten in New York. He joined in the work, and their training school became justly celebrated. Since his death the Kraus Alumni Kindergarten Association has been organized to cherish his memory and to promote the interest of Kraus Seminary.

LALOR, JOHN J., author, in Washington, D. C., June 10. Taught in high school in Milwaukee, 1885; later went into the publishing business; translated various works from French and German, and was employed as a translator in the office of the Director of the Mint, Washington. D. C. He edited a cyclopedia of political science, political economy, and political history of the United States, and was the author of many other works.

LOCKWOOD, HENRY HAYES, educator and soldier, in Washington, D. C., December 7; born in Kent County, Del., August 17, 1814; graduate of West Point 1836; was assigned to the artillery and took part in the Florida war against the Indians; resigned and became farmer; 1841 professor in United States Navy; took part in capture of Monterey; 1842–1845 professor of tactics in Naval Academy; 1845 and 1861 professor of astronomy and gunnery; became brigadier-general and commanded a brigade at Gettysburg. After the war was again professor at the Academy, 1871–1876; served at the Naval Observatory; published a manual for naval service.

McALPIN, WILLIAM, June 2; born in Cincinnati, Ohio, January 20, 1839; graduated at Yale 1860; was engaged in business the greater part of his life; devoted much time to Sunday-school work and to the Young Men's Christian Association; was much interested in music, and became president of the College of Music until his death; was trustee of the University of Cincinnati from 1892 till his death.

McCRACKEN, Rev. CLARKE L., died the 29th of June; born in Kortright, N. Y., January 28, 1828; graduated at Union 1869; studied theology, became pastor at different places, and in 1893, till his death, president of the Normal Institute at Henderson, N. C., where he at times had care of 700 pupils of both sexes; he emphasized manual training.

McENROE, WILLIAM HALL, died in New York May 17; born at Charlottesville, Va., August 15, 1854; graduated at the University Medical College in 1882; member of staff of Billerica Hospital, and for thirteen years taught in the medical college; published notes; was selected for a chair in Cornell Medical College just before his death.

McKEE, Mrs. MARY A., assisted Dorothea L. Dix most efficiently in care of the soldiers. After Miss Dix secured the charge of erection of New Jersey State Hospital for the insane, Mrs. McKee gave her services to it, and remained there more than thirty years.

MACY, WILLIAM C., July 4, New York City; born at Hudson, N. Y., November 10, 1832; graduate of Union College 1860; was tutor at Union three years, and eleven years assistant professor of Greek; spent most of his life in teaching, lecturing, and writing for magazines.

MAGILL, WILLIAM A., in Amherst, Mass., November 22; born in Bryan County, Ga., January 2, 1836; served in the war for the Union; established a boarding school for boys in old Lyme, Conn., also in Newton, N. J., and in New Haven, Conn., where he conducted classes connected with Hopkins Grammar School.

MAGUIRE, NICHOLAS H., in Philadelphia, Pa., June 29; born in Burlington, N. J., September 21, 1814; was professor in Laurel Hill College, Philadelphia, in 1835; principal of Coates Street School in 1842; 1858–1866 was principal of Central High School; 1870 principal of S. E. Grammar School, where he continued until 1891, when he became supervising principal over all the public schools of the city.

MARCY, OLIVER, LL. D., educator, in Evanston, Ill.; born in Colerain, Mass., February 13, 1820; graduate of Wesleyan University 1846; was professor of natural history in Northwestern University 1862; 1876–1881 was acting president, and since 1881 has been dean of the faculty; was geologist in 1866 in the Government road service; was fellow of the Royal Geographical Society; published many addresses and essays.

MARSH, CALEB SPENCER, in Trefiew, North Wales, February 3; born in Bath, Me., January 20, 1830; graduate from Dartmouth 1849, and attended one course of medical lectures; graduated from Andover Seminary in 1855; was licensed to preach and ordained pastor of the First Congregational Church, Burlington, Vt., November 6, 1856, where he remained until 1860; was pastor of Presbyterian Church at Haverstraw, N. Y., 1862–1868; was professor in the University of Vermont 1872; studied and traveled in Europe; was professor of modern languages 1872–1875 in University of Vermont, and was assistant in Congressional Library 1882–1891.

MARSH, OTHNIEL CHARLES, LL. D., Ph. D., in New Haven, Conn., March 18; born in Lockport, N. Y., October 29, 1831; graduated at Yale 1860, after which for two years studied science in the Sheffield School; was for three

years in Berlin, Heidelberg, and Breslau, studying zoology, mineralogy, and geology; became professor of paleontology at Yale, where he remained until his death. Through his influence with his uncle, George Peabody, the money was secured for the erection of the Peabody Museum, and he became its curator; in 1878 he was president of the American Association for the advancement of science, and from 1883–1895 was president of the National Academy of Science; he received many honors in science; his bibliography contains 237 titles.

MARTIN, THOMAS, in McIndoe Falls, Vt.; born July 12, 1846, at Charlestown, Mass.; graduated at Dartmouth in 1871; was principal of McIndoe Academy for several years; taught also at Bradford Academy, Lyndon Institute, and the Newport High School; was ten years principal of the high school at Barton, Vt., and superintendent of schools in Peacham, Barnett, and Barton, Vt.

MASON, T. B. M., in Saugerties, N. Y., October 15: born in New York City, May 8, 1848; graduate of the U. S. Naval Academy 1868; he organized the office of Naval Intelligence, and brought it to a high state of efficiency; was naval aid to Presidents Grant and Arthur, and to Secretaries Robeson, Whitney, and Tracy.

MEDILL, JOSEPH, journalist, in San Antonio, Tex., March 16; born at St. John, New Brunswick, April 6, 1823. His family emigrated to Massillon, Ohio, and engaged in farming in 1831; while employed on the farm he walked 9 miles on Saturdays to receive instruction; was admitted to the bar in 1846. After two years of practice at New Philadelphia, Ohio, bought the Coshocton Republican, a weekly Whig paper, which he conducted for two years, when he left the law; 1871 he started in Cleveland The Forest City, which he united with The Free Democrat, under the name of The Cleveland Leader; was opposed to the extension of slavery, and one of the 13 men who organized the Republican movement in Cleveland; in 1854–55 he sold out and joined others in establishing the Chicago Tribune. He supported Mr. Lincoln's election, urging the proclamation of emancipation long before issued; urged General Grant for Presidency before nominated; also urged a single term of six years; 1871 was appointed member of the first Civil Service Commission; was elected mayor of Chicago; did much to secure a new charter and the establishment of the public library; aided in the organization of the Chicago Exposition.

MEEK, B. F., LL. D., in Tuscaloosa, Ala., June 16: graduate of the University of Alabama; he occupied the chair of English literature in the University of Alabama for more than thirty years; was offered the same chair at the University of Oxford, England, also the presidency of the University of Virginia, but declined both; preferred to remain with his alma mater.

MERGENTHALER, OTTMAR, inventor of the linotype, in Baltimore, Md., October 28; born in Wertburg, Germany, May 10, 1854; learned the trade of watchmaker, and at the age of 18 came to this country penniless and friendless. The crude machine was tried by the New York Tribune; it became a commercial success by the application of the Rogers spacer.

MILES, WILLIAM PORCHER, in Burnside, La., May 11; born at Charleston, S. C., July, 1822; graduate of Charleston College, and for several years assistant professor; engaged in relief service in a period of yellow fever at Norfolk; returning to Charleston, was elected mayor; elected to Congress 1856, 1858, and 1860; elected to convention adopting the ordinance of secession; was Confederate colonel and member of Confederate congress; in 1880–1882 was president of the College of Agriculture and Mechanic Arts, as the State college was called during that period,

MILLER, HENRY CARLTON, jurist, in New Orleans, La., March 5; born in Covington, La., in 1828; studied law with his father; for several years was professor of international law in Tulane University; for twelve years was associate justice of supreme court of Louisiana.

MILLER, LEWIS, philanthropist, in New York City, February 17; born in Greentown, Ohio, 1829; apprenticed to a machinist; one of the first to produce a successful reaping and binding machine; established a shop for manufacturing agricultural machinery at Canton, Ohio; was a devoted Sunday-school worker; sought the improvement of Sabbath schools; conferred with Bishop John H. Vincent and aided in founding and developing the Chautauqua Assembly. He gave largely of his means for religious and benevolent purposes.

MOODY, DWIGHT L., evangelist and religious educator, died December 22, in Northfield, Mass.; born there February 5, 1837; was left with six brothers and one sister to the care of a widowed mother; attended common school and aided his family; at 17 became clerk in a Boston shoe store, where he remained two years. During this time he joined the Mount Vernon Church, Dr. Kirk, pastor. In 1856 he went to Chicago and became active in Sabbath-school work, gathering a school of over 1,000 pupils, and two years later gave up business entirely to devote himself to Christian work; was in the Christian Commission during the war; became general missionary of the Y. M. C. A. in Chicago, and practically its head in that city; he built a church for his Sabbath school and connected with it a school for workers and foreign missionaries. This church was burned and rebuilt. He twice visited England and aided Ira D. Sankey, the singer; he pursued evangelistic work in York, England, in a quiet way. This work grew rapidly and audiences of 10,000 to 20,000 responded to his appeals in the leading cities. He returned to America in 1875 and continued the same work—holding meetings in most of the leading cities. In Boston a large tabernacle was built for him, costing $10,000, where meetings were held daily with an attendance of 5,000 to 10,000 for four months. In 1883 he and Mr. Sankey returned to London and conducted evangelical meetings, drawing enormous audiences. In his last visit to Scotland in 1891 he spoke in 99 towns. His brief visit to Palestine may be called his only holiday. He was a tireless worker. In 1879 he opened a small school for poor but promising girls in his region. In 1880 the foundation of the first of the buildings for the schools at Northfield was laid. They numbered in fine 50, representing a cost of about a million dollars and accommodating 1,000 pupils. For some twenty years Mr. Moody devoted his summer vacations to these schools and their conferences. He was stricken with paralysis in the midst of meetings in Kansas City, where his audiences numbered thousands. It is said that more than 50,000,000 people have listened to his addresses. He was noted for his singleness of purpose, his undying enthusiasm, his indomitable will, his great common sense, his mastery of men, his great organizing ability, and his wonderful power of speech, together with that mysterious quality which we call personal magnetism. His publications were numerous.

MOORE, CLARA JESSUP, in London, England, January 5; born in Philadelphia, Pa., February 16, 1824; daughter of Augustus E. Jessup, scientist of Major Long's expedition to the Yellowstone, 1816, and was widow of Bloomfield H. Moore, from whom she inherited large wealth; was known as a writer of fiction and poetry under the nom de plume of Mrs. Clara Moreton; established the woman's Pennsylvania branch of United States Sanitary Commission, and later aided in founding the Union Temporary Home in Philadelphia; in 1880 established Bloomfield Moore Art Collection in Franklin Institute; in

1887 made her permanent home in London. From 1881 until his death in 1898 John E. W. Keeley was dependent on her bounty.

MORITA, KUMATO, in Japan, February 23; born in Japan in 1858; graduate of Yale in 1892; taught there, and also ten years in Japan.

MURRAY, JAMES ORMSBY, D. D., LL. D., in Princeton, N. J., March 27; born in Camden, S. C., November 27, 1827; graduated at Yale in 1854; was instructor at Brown University; was pastor for a period; was Holmes professor from 1875; dean of faculty from 1883.

NEWTON, WILLIAM MORRISON, in Provincetown, Mass., January 10; born May 26, 1867, in Truro, Mass.; graduate of Dartmouth, 1889; taught in high school of Watertown and Waltham, and for four years teacher in Charlestown.

ORCUTT, HIRAM, LL. D., in Brookline, Mass., April 17; born in Acworth, N. H., February 1, 1815; graduate of Dartmouth, 1842; was principal of Hebron Academy, N. H., Granville Seminary, N. Y., Glenwood Seminary, West Brattleboro, Vt., of Tilden Seminary, West Lebanon, N. H. In his forty years of teaching he had under his charge over 5,000 students, many of whom he trusted for their expenses and received payment as they earned the money. He was associated in the conduct of the Journal of Education and wrote for it until his death. He was classmate of Dr. John D. Philbrick and teacher of John Eaton. He published several books.

ORMISTON, REV. WILLIAM, D. D., LL. D., near Los Angeles, Cal., March 19; born in Lymington, Lanarkshire, Scotland; graduate of Victoria College, Canada, 1848; was pastor in Presbyterian Church, 1853-1857; professor of Toronto Normal School, 1854-1857; examiner in the university, 1853-1863; superintendent of classical schools, Ontario.

ORTON, EDWARD, LL. D., Ph. D., in Columbus, Ohio, October 16; born in Deposit, N. Y., March 9, 1829; graduate of Hamilton College, 1848; 1856-1865 taught in a normal school in Albany, N. Y.; became president of Antioch College, Yellow Springs, Ohio, 1873; for several years was president of the Ohio College of Agriculture; was assistant in United States Geological Survey; was president of the State Sanitary Association and of the Ohio Academy of Sciences; president of the American Geological Society, and two years later of the American Association for the Advancement of Science; published several works relative to his scientific specialty.

PARSONS, EBENEZER GREENLEAF, in Derry, N. H., December 10; born in Westport, Me., May 15, 1813; graduate of Bowdoin, 1833; taught one year; was pastor of several Congregational churches; principal of Pinkerton Academy, Derry, N. H., 1869-1882, and principal of Dummer Academy, Byfield, Mass., 1872-1882.

PATTEN, DANIEL DANA, in Cambridge, Mass., February 14; born in Candia, N. H., April 25, 1829; graduate of Dartmouth 1855; taught at Chester Academy and at Friends' School, Providence, R. I.; was admitted to the bar in 1861; was principal of high schools at Stoneham and Winchester, Mass., 1866-1873, of the high school, Portland, Me., 1873-1877; subsequently took charge of boys' school.

PAYNE, Rev. CHARLES HENRY, D. D., LL. D., educator, at Clifton Springs, N. Y., May 5; born in Taunton, Mass., studied at the Concord, N. H., Biblical Institute; served as pastor in New York, Brooklyn, and Philadelphia conferences; 1875, was elected president Ohio Wesleyan University; resigned in 1888 to become corresponding secretary of the board of the Methodist Episcopal Church; was member of the commission to revise the church hymn book and of the Methodist conference in London in 1881, and was five times member of the general conference of the M. E. Church. He was the author of several publications.

PENDLETON, WILLIAM K., in Bethlehem, W. Va., September 1; born in Yancyville, Va., September 8, 1817; took an elective course at the University of Virginia and graduated in law. In 1841 he was associated with Alexander Campbell in founding Bethany College and in 1866 was elected its president. From 1846 he was coeditor of The Harbinger and was on the editorial staff of the Christian Standard; was a member of the constitutional convention of West Virginia, 1871, and was twice elected State school superintendent, and drafted the school law which has remained much the same to date. In 1887 he resigned his presidency and removed to Florida.

PERKINS, FRED. K. BEECHER, librarian at Morristown, N. J., January 27; born in Hartford, Conn., September 27, 1828; studied at Yale, but graduated at State Normal School, Connecticut, 1852; 1880–1887 was librarian of the San Francisco public library; contributed largely to the improvement of library administration; published many books, and was noted for his antiquarian attainments. He was a grandson of Dr. Lyman Beecher.

PERRY, AMOS, historian, in New London, Conn., August 10; born in South Natick, Mass., August 12, 1812; gradnated at Harvard 1837 and immediately devoted himself to teaching; was one of the founders of Rhode Island Institute of Instruction; was for twenty-five years custodian of the Rhode Island Historical Society and for some time was in the diplomatic service.

PETTIT, Mrs. ANNA STOCKTON, Ph D., in Potsdam, N. Y.; born in Canton, N. Y., 1863; graduate of the St. Lawrence University of New York, 1882; assisted her husband as principal of the Lawrence school. Lost her sight and became proficient in the use of the point type for the blind.

PLACE, WILLIAM F., in Francestown, N. H., November 14; born at Alfred, N. Y., May 6, 1844, and graduated at Williams College in 1873; taught in Alfred University, 1873–1877, academy at Walworth, Wis., 1877–1879; professor in Milton College, 1879.

RAYNER, WILLIAM S., philanthropist, in Baltimore, Md., March 1; born in Bavaria, 1821; removed to Baltimore in early life; he gave the ground and erected a building for the Hebrew Orphan Asylum; director of the House of Refuge; vice-president of the Poor Association, and manager of the Home for Incurables, to both of which he gave money and time.

REBISSO, LEWIS T., in Cincinnati, Ohio, May 3; born in Italy in 1837; took part with Mazzini in the endeavor to establish an Italian republic; became distinguished as a sculptor. His work may be seen in the statue of McPherson, Washington; Grant monument, Chicago; and President Harrison's statue, Cincinnati. From 1875 was instructor in the McMicken School of Design.

REED, AMOS, author, in Remsenburg, Long Island, N. Y., August 19. Taught in Polytechnic Institute of Brooklyn; wrote an elementary text-book called "Graded Lessons in English," also other works on the same subject.

REYNOLDS, Gen. JOSEPH JONES, at Washington, D. C., February 26; born in Flemingsburg, Ky., January 4, 1822; graduate of West Point, 1843; major-general in the civil war; assistant professor at West Point; resigned from the Army to become professor in Washington University, St. Louis, Mo. He was a brave soldier and administered important commands with special approval.

RICHARDS, ZALMON, in Washington, D. C., November 1; born in Cummington, Mass., August 11, 1811; graduate of Williams, 1836, and began at once to teach; taught ten years at Stillwater, N. Y.: 1848–1851 principal of the preparatory department of Columbian College, Washington, D. C. He shared in the organization of the National Educational Association and was its first president. In 1861 was appointed to a clerkship in the Treasury, where he remained

for six years; 1860 was elected to the common council of the city, and made president of the council 1867; was a clerk under Dr. Barnard in the Bureau of Education; was appointed the first superintendent of the white schools of the city, holding the position one year; conducted a private school in Washington for several years, and throughout his life was an earnest worker for the promotion of public education.

RICHARDSON, WILLIAM, teacher, Ph. D., in New York city, April 15; born in Camaroon, Wales, 1859. He studied at Cooper Union, and subsequently held the post of director for nearly ten years.

RICKOFF, ANDREW J., in San Francisco, Cal., March 29; born in New Hope, N. J., August 23, 1824. In 1830 his parents removed to Cincinnati. He began to teach at the age of 17, and by untiring application to his studies won from the Ohio University the degree of A. M.; was five years superintendent of schools in Portsmouth, Ohio; then taught in the public schools of Cincinnati, where after two years he was appointed superintendent of schools and continued in the office five years; conducted a private school nine years; was elected to the city board of education in 1864, and was its president for two years; subsequently superintendent of the schools in Cleveland; after fifteen years in this service he became superintendent in Yonkers, N. Y. Resigning this office he returned to Ohio and then removed to California. In 1859 was elected president of the National Educational Association. In 1885 was president of the Ohio State Teachers' Association. In 1880 was elected member of the National Council of Education, limited to 52 members. For several years after 1888 he was in charge of Felix Adler's workingman's school. He was the author of an arithmetic and other text-books, and joint editor of a series of six readers. He secured the reorganization of the educational system in Cleveland on a basis which is still maintained and which was highly commended at the Centennial Exposition in Philadelphia in 1876. His system has been widely followed. He paid special attention to school architecture and to the heating and ventilation of school buildings, and received at the Centennial Exposition a medal for his designs.

ROPES, JOHN CADMAN, in Boston, Mass., October 28; born in St. Petersburg April 28, 1836; graduate of Harvard, 1857; admitted to the bar in 1861; took great interest in military affairs; promoted the organization of the Military Historical Society, Massachusetts, and was largely instrumental in inducing the United States Government to attempt the collection and preservation of information relative to the civil war. He published several works on this subject.

RUST, Mrs. RICHARD S., in Cincinnati, October 3; born near Baltimore, Md., in 1833. Her maiden name was Elizabeth Townes. Her family moved to the neighborhood of Dayton, Ohio, and she graduated at Cooper Academy in 1853; was one of the founders of the Methodist Home Missionary Society, June 8, 1880, of which she was secretary, Mrs. Rutherford B. Hayes being at the same time president. She greatly assisted her husband in the Freedmen's Aid and Southern Education Society. She was active in securing women supervisors for criminals and in securing the introduction of domestic science in public schools, as well as in those under the direction of the Freedmen's Society.

RYDER, JOHN C., in Bangor, Me., February 15; born in Readfield, Me., in 1856; graduate of Colby University, 1882. He was teacher in Roxbury High School, and for three years was master of Brighton High School.

SAVAGE, Rev. CHARLES ALBERT, Orange, N. J.; born in Stowe, Vt., July 10, 1849; graduate of Dartmouth in 1871; taught at St. Johnsbury, Vt., three years, and was professor of mathematics, Robert College, for four years.

SAVAGE, PHILIP H., in Boston, June 5; born in Boston, Mass., February 13, 1868; graduate of Harvard, 1893; was editor of Harvard Monthly; was instructor in the Massachusetts Institute of Technology, and became secretary to Librarian Putnam in the Boston Public Library, and his successor when Mr. Putnam was appointed librarian at Washington, D. C.

SAWYER, THOMAS J., in Somerville, Mass., July 23; born in Reading, Vt., January 9, 1804; graduate of Middlebury College, 1829; was pastor in New York nearly twenty years; 1845–1852 was president of the Clinton Liberal Institute, New York, and in 1847 was one of the founders of Tufts College, at Medford, Mass., where he became active professor and later professor emeritus.

SMITH, Rev. BURRETT A., in Worcester, Mass., June 16; born in New Haven County, Conn., August 4, 1820; graduate of Yale, 1843; taught in New London; was instructor in University of Michigan; was five years instructor in Leicester Academy, Massachusetts. After leaving there was a successful teacher of boys' private schools in New Haven and New York.

SOUTHWORTH, Mrs. EMMA D. E. N., in Washington, D. C., July 30; born in Washington, D. C., December 26, 1819; taught public school in Washington for five years; wrote several stories to increase her income, which proving eminently successful she devoted herself entirely to this branch of literary work, in which she achieved wide reputation.

SPAULDING, FRANK BRIGHAM, in Boston, January 21; born in Dracut, Mass., December 28, 1858; graduate of Dartmouth, 1881; taught in West Lebanon, N. H., Providence, R. I., Townsend, Vt., Bradford, Pa., and Winthrop, Mass.; was manager of the Teachers' Cooperative Association from September, 1887, until his death.

STEVENS, Mrs. MARTHA B., in Hoboken, N. J., April 1; born at Princeton, N. J. She aided education by bequests to Stevens Institute, by establishing a school for manual training and erecting a building for a free public library.

STILLÉ, CHARLES JANEWAY, LL. D., at Atlantic City, August 11; born in Philadelphia September 23, 1819; member of the United States Sanitary Commission and author of its history; 1866 professor in the University of Pennsylvania, and in 1868 its provost or president, which office he held until 1880.

STRIEBY, Rev. M. E., D. D., at Clifton Springs, N. Y., March 16; born in Columbiana, Ohio; removed to Wooster, Ohio; entered Hudson College, but graduated at Oberlin, 1835; became pastor in Ohio and New York, and was chosen secretary of the American Missionary Association; was active in establishing its many schools in the South—Fisk, Hampton, Atlanta, and about twenty other chartered institutions; of these he was a helpful counselor till his death.

SUMMERS, THOMAS O., M. D., in St. Louis, Mo., June 19; born in Charleston, S. C., November 10, 1849; was in the Confederate service; was professor in Vanderbilt University, and in 1895 was called to a chair in the College of Physicians and Surgeons in St. Louis. In the Spanish war was surgeon to the Second Tennessee.

SWALLOW, GEORGE CLINTON, M. D., LL. D., April 21, Evanston, Ill.; born in Buckfield, Me.; graduate of Bowdoin, 1843; taught five years in Brunswick; for two years was instructor in the University of Missouri at Columbia; in 1853 State geologist; 1864–65 was State geologist of Kansas; 1867 engaged in exploring Montana; 1870 was recalled to Missouri, where he became dean of the Agricultural College.

SYLVESTER, Rev. CHARLES S., in Feeding Hills, Mass., January 25; born in Williamstown, Mass., 1826; graduate of Williams, 1846; was settled in several pastorates; for five years was associated with Mr. Quong in preparing textbooks for the schools of China.

SYNNOT, JAMES J., D. D., in Montclair, N. J., March 16; born on Long Island, N. Y., February 6, 1863; graduate of St. Francis Xavier College, 1882; studied six years in Austria; 1889 became professor in Seton College, South Orange, N. J., where he remained until he became president in 1897, which position he held until his death.

TALBOT, Rev. BENJAMIN, at Columbus, Ohio, January 16; born in Brooklyn, N. Y., May 22, 1826; graduate of Yale in 1849; taught in New Haven, and was principal of Williston Seminary, Massachusetts; subsequently entered upon his life work as teacher of the deaf and dumb. After teaching for a period in the Columbus school he became superintendent of the Iowa Institute.

TALBOT, ISRAEL TISDALE, in Hingham, Mass., July 3; born in Sharon, Mass., October 29, 1829; graduated at the Pennsylvania Homeopathic Hospital; studied four years in Europe; originated the Homeopathic Medical Dispensary. He was active in organizing the Boston University School of Medicine, of which he was from its commencement dean and professor; was member of Homeopathic Congress in London, 1881; for several years edited the New England Medical Gazette.

TAYLOR, CHARLES FAYETTE, M. D., in Los Angeles, Cal., January 25; born in Williston, Vt., April 25, 1827; graduated from the medical department of the University of Vermont in 1856; studied the Swedish movement cure with Dr. Roth in London, and applied himself to the treatment of the crippled and deformed; made various useful contrivances to assist in this work; published extensively, and was a benefactor to those suffering from deformities.

THAYER, ELI, in Worcester, Mass., April 15; born at Mendon, Mass., July 11, 1819; graduate of Brown University, 1845, and became principal of Worcester Academy in 1845; he established the Oread Institute, Worcester, Mass., a collegiate school for girls, in 1848; was a member of the Massachusetts legislature; founded the town of Ceredo, Va., and was Representative in Congress, 1857–1861.

THOMPSON, Mrs. ELIZABETH ROWELL, in Littleton, N. H., July 20; born in Lyndon, Vt., February 21, 1821; daughter of a poor farmer; in 1844 married a millionaire philanthropist, Thomas Thompson, of Boston, and at his death followed his charitable example; devoted $10,000 to the investigation of the yellow-fever epidemic; founded the town of Longmont at the base of the Rocky Mountains, giving 640 acres of land and $300 to each colonist; contributed to the purchase of a telescope for Vassar College. Presented Carpenter's painting of the signing of the Emancipation Proclamation to Congress, and was given the freedom of the floor of the House of Representatives. She was patron of the American Association for the Advancement of Science; she cooperated with the Bureau of Education in advancing the kindergarten, the teaching of industries and good manners.

THOMPSON, F. F., in New York City, April 10; born there in 1836; graduated at Williams College in 1851; was the founder of several banks; presented Williams College with chemical laboratories and a fund for the support of free courses of lectures; erected a building for Vassar at a cost of $200,000; gave largely for the Teachers' College, New York City, and for the Ontario orphan asylum; for many years supported four students at his favorite colleges, Williams and Vassar.

TRUFANT, ISAIAH, in Cundy Harbor, Me., July 23; born in Harpswell; graduate of Bowdoin; taught school many years in the West and South, and was principal of Parsonsfield Academy, Parsonsfield, Me.

TUCKER, GIDEON J., in New York City, July 7; born there February 10, 1826; received a common school and legal education; became editor of the Albany Argus. In 1855 founded the Daily News; 1857 was elected secretary of state, and was made a regent of the university and granted the degrees of A. M. and LL. D. Was elected to the assembly in 1865, and secured the passage of the law for the prevention of cruelty to animals, and the act fixing provisions for the free college; was a member of the State constitutional convention 1867–1894.

TURNER, J. B., in Jacksonville, Ill., January 10; born in Templeton, Mass., December 7, 1805; graduate of Yale in 1833; became professor at Jacksonville College, but resigned in 1847 and devoted himself to farming, introducing the osage orange hedge to the Western prairie, and before 1850 formulated the plan for an agricultural and industrial university. By his persistent advocacy of this interest he helped to excite the attention of Congress to its importance and thus assisted in bringing about the act of 1862 establishing agricultural and mechanical colleges; was well known as lecturer, editor, and preacher; published a volume against Mormonism.

TURRENTINE, JOHN, in Marionville, Mo., October 27; born in Alabama, December 12, 1834; obtained his education with difficulty; taught in high schools at McLeansboro, Enfield, and Carmi, Ill., and in a college at Enfield until 1879, when he removed to Marionville, Mo., and became president of the Collegiate Institution, which position he held until his death.

VANDERBILT, CORNELIUS, in New York City, September 12; born in New Dorp, Staten Island, N. Y., November 27, 1843; educated in the common schools; became clerk, and in 1865 assistant treasurer of the Harlem Railroad. In 1877, after the death of his grandfather, was vice-president of the New York Central Railroad, having control of its finances. On his father's death, December 8, 1888, he became the head of the Vanderbilt family. At the time of his death he was connected with 54 railroad companies. He gave constant attention to the several charitable organizations with which he was associated. In 1886 was one of the contributors of the $250,000 for the Vanderbilt clinic. In 1897 gave $250,000 to the St. Bartholomew's Home; contributed to the railroad branches of the Young Men's Christian Association; made gifts to Yale College amounting to $1,500,000; presented the Rosa Bonheur painting, "The Horse Fair," to the Metropolitan Museum, having paid for it the sum of $53,000 at the sale of the Stewart collection; gave $100,000 to the Cathedral St. John the Divine, New York City. He was also a member of a large number of beneficial associations.

WALKER, AARON, in Providence, R. I., January 22; born in Belchertown, Mass., August 22, 1815; graduate of Amherst College, 1841; taught in Ware, Mass., over twenty years; in Lowell 1842–1845, in Boston 1845–1864; was a member of the Christian Commission, New Orleans, La., 1854–1866, and superintendent of the Government schools for colored people. He studied medicine at Harvard and at New York, and secured the degree of M. D. in 1868; practiced his profession in Manchester, N. H., two years, and in Denver, Colo., for fifteen years.

WATERMAN, L., in New York City, March 16; born in Bavaria, Germany, February 22, 1817; studied at Erlangen; emigrated to America 1840; engaged in business in New Haven, and subsequently taught German at Yale, where he received a degree in 1848, being the first Jew so honored by the college; became a surgeon and for thirty years filled the post of police surgeon in New York City, doing good work during the riots of 1863; made a special study of spectroscopic analysis, and in 1868 introduced it into medical

practice; was for fifteen years physician of the Hebrew Orphan Asylum, New York; was professor in the eclectic medical college, and was one of the founders and medical directors of the home for the aged at Yonkers; was one of the founders of the Maimonides Library; was a man of exceptional talents and broad sympathies.

WATTERSON, Rev. J. A., D. D., in Columbus, Ohio, April 17; born in Blairsville, Pa.; graduated at St. Mary's College, Emmitsburg, Md., 1865; became a member of the faculty and succeeded Dr. McClosky in 1877 as president of the college. In 1880 was made bishop of Columbus, Ohio, established a college, and had under his supervision three academies and 32 parochial schools.

WEBB, JOSIAH B., in Portland, Me., May 20; born in Windham, Me., January 19, 1826; educated at Gorham; given an honorary A. M. by Bowdoin; was principal at Gorham four years, at Yarmouth one year; was several years county supervisor of schools.

WEBB, WILLIAM H., shipbuilder, in New York City, October 30; born there June 19, 1816. He built and endowed Webb's Free Academy and Home for Shipbuilders, on Fordham Heights, N. Y.

WHITNEY, I. S., in Riverdale, February 8; born in Henniker, N. H., September 20. For many years taught in the old-fashioned singing school; began to teach singing in Manchester public school in 1860, and was there employed eleven years; leader and promoter of musical affairs.

WILD, Mrs. MARY A. P., benefactress, in Boston, in December. She gave of her estate, valued at over $200,000, gifts to public objects to the amount of $60,000, and private gifts amounting to over $100,000; divided the residue of her estate among important institutions.

WILKIE, WARREN, in Austin, Ill., February 10; born in Evans Mills, N. Y., February 25, 1835; graduated at Union College in 1855; was principal of the Aurora, Ill., Academy ten years and of Oak Park for nine years following; was also superintendent of schools at Lake and at Aurora, Ill.

WILLIAMS, ED. H., in Santa Barbara, Cal., December 21; born in Woodstock, Vt., June 1, 1824; graduated at Vermont Medical College in 1846; was assistant superintendent of various railroads from 1851–1865; 1865 general superintendent of Pennsylvania Railroad; traveled extensively; 1881 built Williams Hall for Carleton College, Minnesota, and presented that college a 16-inch telescope; 1884 he built and endowed the public library at Woodstock, Vt.; he also erected a building for the University of Vermont.

WILLIAMS, Rev. JOHN, in Hartford, Conn., February 7; born in Deerfield, Mass., August 30, 1817; graduate of Trinity College in 1835; was ordained in 1838; was president of Trinity College in 1848–1853, and retained active connection with the college for nearly forty years. Upon the founding of the Berkeley Divinity School at Middletown, Conn., in 1854, he became the first dean, and remained at its head until his death. He published several books on theological subjects.

WINTHROP, WILLIAM, at Atlantic City, April 8; born in New Haven, Conn., August 3, 1831; graduated at Yale in 1851, and after studying law at Yale and Harvard began to practice; 1861 enlisted as a private, was rapidly promoted, and in 1874 was made professor of law at West Point, which position he held until 1890. He wrote extensively on military affairs.

WOOD, WILLIAM, M. D., in Portland, Me., January 22; born at Scarboro, Me., October 2, 1810; graduate at Bowdoin 1829; was one of the founders and chief benefactor of the Portland Natural History Society, and its president for nearly half a century.

WOODBRIDGE, LUTHER DANA, M. D., at Williamstown, November 10; born at Perth Amboy, N. J., December 27, 1850; graduate of Williams 1872; taught a year in the American (Robert) College at Constantinople; was physical instructor in Williams, and took his medical diploma at the college of physicians 1877; lectured before the Boston college of physicians; was prominent in medical affairs.

YOUNG, JOHN RUSSELL, journalist and librarian, in Washington, D. C., January 17; born in Downingtown, Pa., November 20, 1841; was educated in the public schools of Philadelphia and New Orleans; 1857 was a copyholder on the Philadelphia Press; subsequently became war correspondent, and finally chief editor of the Philadelphia Press until 1865. In 1866 joined the staff of the New York Tribune and became its managing editor, 1871–1877. Accompanied ex-President Grant on his journey around the world as the correspondent of the New York Herald. In 1882 was appointed minister to China, which post he resigned in 1885; was appointed June 30, 1897, the first librarian in the new library building at Washington. He was the author of "Around the World with General Grant," two volumes; of a Memorial History of Philadelphia, from its first settlement to 1895.

1900.

ADAMS, ENOCH G., South Berwick, Me., November 4; born at Bow, near Concord, N. H., February 20, 1829; graduated at Yale, 1849; taught in Newmarket, Stratford, and Durham, N. H., 1850–1853, and in other New England towns; 1853–1856 taught in Missouri; returned to the East and taught in Newburyport, Mass., and Durham, N. H. Entered the Army as a private in the Second New Hampshire Regiment and served throughout the civil war. In 1866 for a few months edited the Frontier Scout; 1866–1868 taught in Portland, Oreg.; 1868–1871 was editor of the Vancouver Register, at Vancouver, Wash.; 1880–1886 edited and published the Columbia. In his latter years wrote and lectured.

ALEXANDER, W. S., in Cambridge, Mass., May 15; born in Killingly, Conn., August 29, 1835. Studied two years at Yale; graduated from Andover Seminary, 1861; same year received his degree from Yale; 1876 became professor in Straight University, New Orleans, and in 1877 was made its president. The degree of S. T. D. was conferred on him by Beloit College; 1884 resigned the presidency of Straight University and returned to Cambridge, Mass., where he held a pastorate until 1896.

ALLEN, JAMES THEODORE, in West Newton, Mass., June 9; born in Medfield, 1831. Taught in Easton and South Natick, Mass.; 1852–53 in Provincetown; subsequently instructor in the Rensselaer Polytechnic Institute, Troy, N. Y. In 1858 became associate principal of the West Newton English and classical school. Studied abroad, 1859–1862.

ARNOLD, OWEN B., August 30; born in Haddam, Conn., July 11, 1818. Graduated from Yale, 1837; taught in Oglethorpe University, Georgia, 1837–1840; for twelve years was active trustee of the Connecticut State reform school and president of Meriden Connecticut National Bank.

BALDWIN, Dr. JOS., in Austin, Tex., January 13; born October 31, 1827, in Newcastle, Pa. In 1852 he graduated from Bethany College, Virginia. Shortly after his graduation he removed to Platt City, Mo., where he was engaged in teaching. He taught subsequently at different places in that State and also in Indiana, to which State he removed in 1857. During the civil war he was a soldier in the Federal Army. In 1867 he returned to Missouri and established in Kirksville, that State, a private normal school. In this enterprise he was so successful that his school was made a State institution, he himself

remaining as principal. In 1881 he went to Texas to conduct a summer normal school in San Marcos, the first summer normal ever held in that portion of the State. The principalship of the Sam Houston Normal Institute, located at Huntsville, that State, having become vacant, Dr. Baldwin was offered the position. This he accepted and served as principal of that institution until 1891, when he was elected professor of pedagogy in the State University. His university chair he held until 1897, when he was made emeritus professor of pedagogy. He was the author of the following educational works: (1) The Art of School Management; (2) Elementary Psychology and Education; (3) Psychology Applied to the Art of Teaching; (4) School Management and School Methods. Dr. Baldwin belonged to the great evangelistic school of modern education which converted the people of this country to two propositions: (1) Public education at public expense is a necessity; (2) teachers employed in these schools should have such training as fits for professional work.

BARNARD, HENRY, LL.D., in Hartford, Conn., July 21; born in Hartford, Conn., January 24, 1811; graduate of Yale, 1830; admitted to the bar in 1835; spent fifteen months in study and travel in Europe, paying especial attention to educational and reformatory institutions; elected to the legislature of Connecticut in 1837, and selected to organize a common school system for the State, 1838–1842. He effected great improvements in schoolhouses and in methods of instruction; 1843–1849 was school commissioner of Rhode Island, and made similar improvements in that State. For four years, beginning with 1850, was State superintendent of schools in Connecticut; 1857–1859 was president of the University of Wisconsin; 1865–66 was president of St. John's College, Annapolis, Md.; for three years, 1867–1870, was Commissioner of Education for the United States, being the first incumbent of that office. He formed important plans for the advancement of education and gathered valuable material from this and from foreign countries, but on account of the failure of both Houses of Congress to concur, as required by law, in the resolution to publish, this material was not made available for the public as originally intended and urged upon Congress by his successor and Secretary Cox. The Senate ordered the publication of two reports by Commissioner Barnard. The bulk of the material collected by him he was permitted to retain, and it was eventually published in his journal and thus became the valuable possession of the public. He had begun the publication of this work, the American Journal of Education, in 1855, and after retiring from the Education Office he devoted his attention to it until his death. The publication reached a total of 31 volumes and contained more than 800 treatises. Each treatise was also published separately. The whole work constitutes an American library on schools and education. In celebration of Dr. Barnard's eighty-seventh birthday, January 24, 1898, the public schools of Hartford were closed, and a distinguished audience gathered in the capitol to do him honor.

BARRY, Rev. J. E., vicar-general of the Catholic diocese of Manchester, N. H.; was killed by a cable car in New York City, November 14; born in Eastport, Me., August 11, 1836; was educated in the Academy of St. John, in New Brunswick, at Holy Cross College, and the Montreal Seminary. In his devotion to the care of the children of his church he founded the Sacred Heart school; was for a number of years member of the Concord school board, and was three times appointed trustee of the State asylum for the insane.

BEALS, SAMUEL DE WITT, in Omaha, Nebr., April 27; born in Chenango County, N. Y., January 10, 1826; early began to teach in his native village. In 1861 moved to Omaha and opened a private school; in 1869 was appointed by the

governor of Nebraska State superintendent of public instruction. In 1871–72 classified the schools of Omaha; in 1872–73 was principal of one of the Omaha schools; was elected superintendent of Douglas County in the fall of 1873, and resigned in 1874 to become superintendent of the Omaha schools, where he continued for six years; afterwards he was occupied as teacher in the high schools or as librarian.

BEECHER, Rev. CHARLES, in Georgetown, Mass., April 21; born in Litchfield, Conn., October 7, 1815; was a son of Lyman Beecher; graduated at Bowdoin in 1834, and later from Lane Seminary; 1844–1871 was pastor of Second Presbyterian Church in Fort Wayne, Ind. Was for two years State superintendent of instruction in Florida; was a gifted musician and had charge of the music in the compiling of the Plymouth collection of hymns and tunes.

BEHRENDS, Rev. A. J. F., D. D., in Brooklyn, N. Y., May 22; born in Nymwegen, Holland, December 13, 1839; came to this country in 1845; graduated at Denison University, Granville, Ohio, 1862, and at Rochester Theological Seminary, 1865. In 1886 was chosen the Ely lecturer at Hartford Theological Seminary. His lectures were published under the title of Socialism and Christianity. He was the Lyman Beecher lecturer at Yale Divinity School in 1890; was chaplain of Thirteenth New York Regiment; was prominent in the Ecumenical conferences on foreign missions.

BETHSON, U., in Louisville, August 16; born in Louisville, 1838; moved to New Orleans before the war; was professor in Tulane University.

BLODGETT, LORIN, in Philadelphia, March 24; born in Jamestown, N. Y., in 1821. He was an eminent statistician and one of the foremost authorities on the higher economics. In 1851 he received an appointment in the Smithsonian Institution at Washington, being placed in charge of the researches on climatology. His works on atmospheric physics were among the first on the subject published in this country.

BLONDEL, FREDERICK HERBERT, at Stamford, Conn., March 11; born August 7, 1856, at Topsham, Me.; graduate of Bowdoin College, 1882; taught at What Cheer, Iowa, and was superintendent of schools at Port Washington, Wis.

BOLTER, ANDREW, entomologist, in Chicago, March 18; born in Sigmaringen, Prussia, in 1820; was a member of the Academy of Sciences in Chicago and of the New York Entomological Society. Was regarded as an authority in entomology, although he published no works on the subject. His collection of insects, said to be the finest on the Continent and one of the most complete private collections in the world, will probably go to the University of Illinois.

BOWEN, Miss ANNA MAUD, in Chicago, January 28; born there in 1872; graduated from the Chicago University 1894; in 1895 was made a fellow of philosophy at Cornell, and two years later received the degree of Ph. D. She was made dean of the seminary at Martins Ferry, Ohio; was an editorial writer on The Nation; in 1899 was appointed dean of Woman's Hall, Northwestern University.

BRADEN, JOHN, educator, in Nashville, Tenn., June 10; born August 18, 1828; graduate of Ohio Wesleyan University in 1853; taught a year in Xenia Female Seminary; 1868 was appointed principal of the city schools of Nashville; 1869 became the founder of Central Tennessee University, one of the largest institutions in the South for the education of colored youth; he was its president from 1869.

BRADFORD, Mrs. JULIET S., August 29; bequeathed to Washington and Lee University $100,000 as endowment.

BROWN, H. W., in Daytona, Fla.; born in Worcester, Mass., 1832; was instructor twenty-one years in Worcester Normal School.

BROWN, MOSES TRUE, elocutionist, in Sandusky, Ohio, September 11; born in Deerfield, N. H., March 4, 1827; taught school for some time and was for six years superintendent of the public schools of Toledo, Ohio; for twenty years was professor of oratory in Tufts College. During this time taught in the Boston School of Oratory, and in 1886 became its president; 1899 was elected to the chair of the philosophy of expression in Ohio Wesleyan University.

BROWNING, WILLIAM W., in Brooklyn, October 3; born in Metuchen, N. J., March, 1852; graduated from Yale 1873, and from Columbia Law School 1875; studied medicine and graduated from Bellevue Medical College; was demonstrator of anatomy in Long Island College Hospital 1885–1894; lecturer on anatomy; 1893 published a book entitled "Modern Homeopathy."

BRUCE, CATHERINE W., in New York City, March 13; born there January 22, 1816. She built and endowed the George Bruce Free Library and branch of the New York free circulating library; in 1888 gave to Harvard College $50,000 for a photographic telescope; 1897 gave a fund to the Astronomical Society of the Pacific for the award of a gold medal once a year for distinguished service in astronomy. She wrote and published a translation of the Dies Iræ in 1890.

BUGBEE, EDWIN HOLMES, in Putnam, Conn., January 26, 1900; born in Thompson, Conn., April 26, 1820; for many years member of the general assembly of Connecticut; speaker of the house in 1871; 1870 lieutenant-governor and ex officio chairman of the senate. He left his large library by his will, together with the sum of $15.000, to the Free Library Association of the borough of Danielson, Conn.

CARMAN, ELBERT S., journalist, in New York City, February 28; born in Hempstead, L. I., 1836; graduated at Brown University 1858; was associate editor and later was owner of the Rural New Yorker. He established the experimental grounds at River Edge, N. J., which were devoted to the testing of new plants, vines, and seeds and the originating of new varieties.

CHAMBERLAIN, Hon. MELLEN, lawyer, judge, author, and historian, in Chelsea, Mass., June 25; born at Pembroke, N. H., June 4, 1821; graduated at Dartmouth 1844; taught several years at Brattleboro, Vt.; practiced law in Boston; was judge of the municipal court 1866–1878; was librarian of the public library 1878–1890, and did much to promote its efficiency; was the author of several books.

CHENERY, Dr. ELISHA, in Boston, August 1; born in Livermore, Me., August 23, 1829; graduated from the Wesleyan Seminary, Kents Hill, Me., and from Harvard Medical School 1853; 1876–1880 was professor of pathology and therapeutics at the Boston Dental College and dean of the faculty.

CHURCH, FREDERICK E., landscape painter, in New York City, April 7; born in Hartford, Conn., May 4, 1826; was a pupil of Thomas Cole, the artist, in Catskill, N. Y.; established his studio in New York City. His pictures received extensive recognition and many honors. He did much for the establishment and development of the Metropolitan Museum of Art in New York City, and also to promote the study of art throughout the country.

CHURCHILL, JOHN W., D. D., in Andover, Mass., April 13; born May 26, 1839; graduated at Harvard 1865 and at Andover Seminary 1868. On the day of his graduation was made professor of elocution and lecturer on literature, and afterwards was appointed professor of sacred rhetoric; was a regular instructor for the academy and Andover Seminary and in numerous institutions, and served as editor of the Andover Review.

CLARK, JONAS G., philanthropist, in Worcester, Mass., May 23; born in Hubbardston, Mass., February 1, 1815. He worked on his father's farm and as an apprentice to the carriage maker's trade, and later engaged in the manufacture of tinware; in 1853 went to San Francisco and took up in addition to his hardware business the shipping of furniture. He made money rapidly, and invested freely in real estate. In 1880 he removed to Worcester, Mass., and in 1887 founded and endowed Clark University with $2,000,000; also built a fine library in Hubbardston and gave property to endow it.

CLARK, L. W., in Manchester, N. H., May 28; born in Barnstead, N. H., August 19, 1828; graduated from Dartmouth 1850; was principal of the Pittsfield Academy, N. H., two years.

CLARK, Maj. SELDEN NOYES, in Washington, D. C., October 9; born in Portageville, N. Y.; was educated in the common schools; enlisted as a private; was appointed adjutant of General Thomas's regiment in the corps raised by General Eaton; was retained in the Freedmen's Bureau; was for a time Indian agent, and subsequently a clerk in the Bureau of Education, engaged particularly on the report on libraries. He became finally correspondent of the New York Tribune, which position he held until his death. His son, Dr. Victor S. Clark, was for a time in charge of education in Porto Rico.

COGSWELL, HENRY D., in San Francisco, July 9; born in Tolland County, Conn., in 1826. Left to care for himself in early life, he worked in a cotton factory, taught a district school, and studied dentistry in Providence, R. I., where in 1847 he opened an office for its practice. In 1849, in the midst of the gold excitement, he took a stock of merchandise to California, and remained there, practicing dentistry and trading, for thirty years. He founded a dental college in San Francisco and conveyed it in trust to the regents of the State University of California. He also established the Cogswell fund for the aid of students needing assistance. As a matter of public beneficence and to promote temperance, he caused to be erected at his own expense elaborate and highly ornamental drinking fountains of bronze or granite in 31 different cities and towns in the United States. The fountain erected in Washington, D. C., was accepted by a joint resolution of Congress July 6, 1882. He donated $35,000 to the founding of the Cogswell Philanthropic Society, and established its annual course of lectures.

CONKLIN, Mrs. JENNIE M. DRINKWATER, author, in New Vernon, N. J.; born in Portland, Me., April 14, 1841. She was educated in the public schools of Portland and at Greenleaf Institute, Brooklyn; in 1880 married Rev. Nathaniel Conklin, pastor of Presbyterian church in New Vernon. She was the originator of the Shut In Society, a bureau of correspondence for invalids, which publishes the Open Window. She is best known as a writer for the religious press and author of books for girls.

CONRAD, VICTOR L., journalist, in Philadelphia, January 7; born in Pine Grove, Pa., October 7, 1824; graduated at Gettysburg in 1851, and the same year was licensed to preach; 1852 was editor of the Evangelical Lutheran at Springfield, Ohio; in 1856 was principal of a public school at Pittsburg, Pa.; 1857 took charge of Cooper Seminary for Young Ladies at Dayton, Ohio; 1867-1870 was professor of natural sciences in Penn College, Gettysburg, Pa.; 1870 removed to Philadelphia and with his brother assumed the duties of associate editor of the Lutheran Observer, which post he held until his death.

COX, JACOB DOLSON, in Magnolia, Mass., August 4; born in Montreal, Canada, October 27, 1828; graduated from Oberlin in 1851, and in 1852 began to practice law; was elected to the State senate; entered the service as briga-

dier-general, and for gallant services at South Mountain and Antietam was made major-general. In 1865 was elected governor of Ohio by the Republican party; 1869–70 was Secretary of the Interior; in 1876 was elected to Congress; was dean of the Cincinnati Law School from 1881 to 1897, and for a time was president of the Cincinnati University. He supported General Grant's Indian policy.

CRAVATH, Rev. ERASTUS M., in St. Charles, Minn., September 4; born in Hanover, N. Y., July 1, 1833; graduated at Oberlin in 1857, and in theology in 1860; was settled as pastor and became chaplain in the Union Army and was mustered out in June, 1865; was appointed field agent of the American Missionary Association to open a school in the central South. Accompanied by Rev. E. P. Smith he reached Nashville, October 3, 1860, and found Gen. Clinton B. Fisk in charge of freedmen with Prof. John Ogden, superintendent of schools, under him. Ogden, Smith, and Cravath bought a square of ground on their own responsibility and General Fisk secured the turning over to them of the hospital buildings on it, which were about to be torn down, thus saving the buildings for school purposes. The new enterprise was opened January 9, 1866. It was named the Fisk School, and John Ogden became its principal. The American Missionary Association and the Western Freedmen's Aid Commission bought the land of Smith, Cravath, and Ogden and sent a corps of 20 teachers to instruct the thousand pupils who were gathered there. In July, 1866, Secretary Smith was called to New York and Mr. Cravath was appointed to the secretaryship in Cincinnati and had charge of the collection of funds in the central Western States and of school work in Kentucky, Tennessee, and northern Georgia and Alabama. In 1870 he became field secretary of the whole work of the society in the South. In 1875 he resigned the secretaryship and was elected the first president of Fisk University. For three years he managed the tours of the original jubilee singers through Europe to raise funds for the university. He returned in 1878 and devoted himself until his death to the care of the growing university.

DAVIDSON, THOMAS, educator and philosopher, in Montreal, Canada, September 14; graduated at the University of Aberdeen, Scotland, in 1860 as first graduate and Greek prizeman, and until 1863 was rector of the grammar (Latin) school of Old Aberdeen; 1863–1866 taught in various schools in England and Scotland. In 1866 accepted a professorship in the London Collegiate Institute, Canada, and in 1867 came to the United States, settling in St. Louis as the classical master of the St. Louis High School, and later became principal of one of the branch high schools. In 1875 he removed to Cambridge, Mass., and continued to make that city his home when in the United States. He traveled extensively in Europe. His interest in Thomas Aquinas led to an invitation from the Pope to settle in Italy and to assist in the preparation of a new edition of the writings of that philosopher. He was interested in many philanthropic and educational movements, and was the founder of the Glenmore Summer School of the Culture Sciences at Keene, in the Adirondacks. Professor Davidson was widely known as a lecturer on history, philosophy, and archæology. His publications were numerous and important, and covered a wide range of subjects.

DAVIS, CHARLES M., at Bayonne, N. J., August 1; born in Bloomfield, N. J., in 1824; graduated at Princeton; taught in Bloomfield and Newark; was associated with Dr. Charles F. Deems in the American Institute of Christian Philosophy, of which he was secretary; was for several years superintendent of public schools at Bayonne; was a member of the New Jersey State sanitary board and of the State council of educators.

DAY, Rev. WILLIAM HOWARD, A. M., D. D., December 3; born in 1827; graduated at Oberlin in 1847. After years of usefulness as a colored educator and helper of his race he was ordained in 1866. He was general secretary of the A. M. E. Zion Church.

DORE, JOHN C., in Boston, December 14; born in Ossipee, N. H., March 22, 1822; graduated at Dartmouth in 1847, having been a student during the time of Professors Sanborn, Haddock, and Crosby, and the presidency of Dr. Lord. On his graduation was appointed usher or assistant principal of the Boylston School, of Boston; two years later he became its principal. In 1854 was invited to Chicago to become the first superintendent of public schools in that city at a salary of $1,500. He introduced new conditions throughout the schools, classified and graded pupils, and founded the high school, thus shaping the system which has grown to enormous proportions. In 1856 he resigned his office and afterwards devoted himself to business. He was interested temporarily in the lumber trade, but especially occupied himself with insurance and banking. His efficiency in preserving the contents of banks in the great fire was specially recognized. He served during two terms as member of the school board, and during one of these as its president. In 1868–1871 was State senator.

DUNBAR, CHARLES F., journalist and educator; in Cambridge, Mass., January 29; born in Abingdon, Mass., July 28, 1830; graduated at Harvard in 1851; was in business for a considerable period, when he retired to a farm for his health. Subsequently graduated at Harvard Law School in 1858 and was admitted to the bar. For years he was a regular contributor to the Boston Daily Advertiser, of which in 1859 he became part owner and editor with Charles Hale. From 1864–1869 he was its sole editor. He traveled abroad for several years, and in 1871 he became professor of political economy in Harvard University. He served as dean of the college faculty from 1876 to 1882, and after the reorganization of that body was the dean of the faculty of arts and sciences from 1890 until 1895. He wrote much on public questions; was president of the American Economic Association in 1893.

EDDY, Rev. W. W., in Beirut, Syria, January 29; born in Penn Yan, N. Y., December 18, 1825; graduated at Williams College in 1845; taught two years in Jacksonville, Ill.; graduated at Union Theological Seminary in 1850; became a missionary instructor and prepared a complete commentary in Arabic on the New Testament.

EGLESTON, THOMAS, in New York City, January 15; born there December 9, 1832; graduated at Yale in 1854; was assistant to Professor Silliman until March, 1855; he then went to Europe and graduated in Paris at the School of Mines in 1860; 1861 was curator of the Smithsonian mineralogical collection; in 1863 he prepared the plans for the Columbia School of Mines, and in January, 1864, was chosen professor of mineralogy and metallurgy; he held this chair until 1897, when he resigned on account of failing health and was made professor emeritus. He was one of the founders of the American Institute of Mining Engineers and its president in 1886; he was one of the founders of the American Meteorological Society and of the societies of mechanical and electrical engineers; was connected with the scientific work of the Union Pacific Railroad in 1866, and in 1868 was United States commissioner to examine the Atlantic coast fortifications; was at the head of various religious and charitable organizations. His publications were numerous and valuable.

EMERSON, Rev. JOSEPH, D. D., LL. D., educator, in Beloit, Wis., August 4; born in Norwalk, Conn., May 28, 1821; graduated at Yale in 1841 and was for a time tutor there. In 1846 he and his classmate, Jackson J. Bushnell, were

invited to Beloit College. There were only three students and no college buildings until 1847, and for a time Messrs. Emerson and Bushnell constituted the faculty. Professor Emerson held the chair of Greek until his death. He was a favorite professor, and is said to have raised $150,000 for the college. He published a volume of lectures and sermons and was specially interested in art.

EVERETT, Rev. CHARLES CARROLL, D. D., LL. D., in Cambridge, October 17; born in Brunswick, Me., June 19, 1829; graduated from Bowdoin College in 1850 and served as tutor, professor, and librarian; studied in Berlin one year and graduated at Harvard Divinity School in 1859; was pastor for ten years at Bangor, Me. In 1869 he became professor of theology at Harvard and in 1878 became dean of the theological faculty, and continued in both positions until his death. He left a valuable legacy in his books.

EVERETT, ERASTUS, LL. D., educator, in Brooklyn, N. Y., May 7; born in Princeton, Mass., 1831; graduated at Dartmouth in 1836; removed to Baton Rouge, La., and with two associates founded the High School of New Orleans in 1843, and became its principal in 1849 and its first president when chartered as a college in 1854; taught select school in Brooklyn 1855–1875, and was professor in Rutgers 1875–1879.

FARNHAM, GEORGE L., August 2, at Birmingham, N. Y.; born in 1824; for a time superintendent of schools at Council Bluffs, Iowa, and afterwards principal of the State normal school, Peru, Nebr.

FEWSMITH, WILLIAM., at Merchantville, N. J., June 19; born January 24, 1826, at Philadelphia, Pa.; graduated at Yale in 1844; was for thirty years principal of the Fewsmith Classical and Mathematical School in Philadelphia, where he fitted many boys for Yale. For seven years was superintendent of schools in Camden, N. J. He edited a "Grammar of the English Language" and an "Elementary Grammar of English."

FINNEY, Rev. THOMAS M., M. D., in St. Louis, October 1; born in St. Louis, July 13, 1827; graduated at Yale, 1847; was licensed to preach, 1850; was editor St. Louis Christian Advocate, 1869–1873; was one of the founders of Central College, at Fayette, Mo., in 1855; for forty years a director and from 1877–1880 president of Bellevue Collegiate Institute at Caledonia, Mo.

FLOOD, Rev. FREDERICK WHITNEY, in East Dennis, Mass., August 13; born at Ellsworth Falls, Me., January 26, 1870; graduated at Bowdoin, 1894; taught in Fryeburg, Hampton, and in Gould Academy, Bethel, Me.; died while pastor at East Dennis.

FOX, JUNIUS B., educator, in Staunton, Va., March 27; born in Lincolnton, N. C., June 7, 1860; graduated at Gettysburg, 1880; was teacher at King's Mountain, 1880–1882, and Charlotte, N. C., 1882–1884; was for some time pastor and again teacher at Newberry College, S. C., whence he moved to Virginia.

FRITSCHEL, Rev. SIGMUND, D. D., in Dubuque, Iowa, April 26; born in Nuremberg, Bavaria, December 2, 1833, where he was educated. He moved to this country and became connected with the Iowa Synod. He was professor and for a time president of the seminary at St. Sebald, Iowa.

FROST, Mrs. ELIZA A. DU BOIS, widow of Dr. C. P. Frost, of Dartmouth College. She was for many years associate principal of Thetford Academy.

GALPIN, Rev. SAMUEL HENRY, at Savin Rock, Conn., September 12; born in Westfield, Conn., October 18, 1812; graduated at Yale, 1835; for a time taught in Connecticut and Natchez, Miss.; graduated from Hartford Seminary, 1844; taught in Lexington, Ky., and Indianapolis, Ind., until 1853; was clerk in

the United States Treasury for over twenty years. The Latin prize to be awarded to the freshman class at Yale is named for him.

GARRISON, Rev. S. OLIN, in Vineland, N. J., in May. He was the son of Rev. Stephen A. Garrison and a graduate of Wesleyan University. For a number of years minister in Philadelphia. He became interested in epileptics and turned his attention to their education and comfort. The result was the founding of the State institution for epileptics for which, through his efforts, there were secured 170 acres of land on which are 10 buildings representing an expenditure of $200,000.

GERRY, CHARLES F., in Sudbury, Mass., September 4. Was born in Sudbury, June 3, 1823; graduated at Middletown, Conn., 1851. Was a teacher in the Mercantile Academy and later in the Fort Hill School, Boston. He served several terms in the house and senate of Massachusetts.

GETCHELL, ISAAC, in Bangor, Me., August 5; born at Carroll, Me., March 10, 1846; graduated at Bowdoin College in 1877. Before receiving his degree he taught school thirty terms.

GIBIER, PAUL, M. D., in Suffern, N. Y., June 9; born in Andre, France, 1851; graduated from the University of Paris, where he became professor of comparative medicine; was at different times employed by the French Government as an expert in cholera and yellow fever, and for his services was made member of the Legion of Honor. He established the Pasteur Institute of New York City.

GILLESPIE, Miss JENNIE E., in Chicago, August 24, where she was born in 1851. She began teaching at 18 years of age, in which work she was very successful. In the Foster School, where she was principal for the last ten years of her life, the usual enrollment was 2,000.

GILMAN, Rev. EDWARD W., D. D., at Flushing, N. Y., December 4; born in Norwich, Conn., February 11, 1823; graduated at Yale in 1843; studied at Union Seminary; ordained at Lockport, N. Y., December 4, 1849; taught in West Point, N. Y., in a private academy, and several years in New York City; was tutor at Yale; was a frequent contributor to the press and was greatly honored for his thirty years' service as secretary of the American Bible Society.

GOULD, Rev. EZRA P., at White Lake, N. Y., August 22; born in Boston, Mass., February 27, 1841; graduated Newton Theological Institution, 1868, where he was professor of New Testament interpretation. He afterwards entered the Episcopal Church and held a similar position in the Philadelphia Divinity School.

GRAY, LANGDON C., in New York, May 8, where he was born April 3, 1850; left Columbia College in his junior year on account of failing sight; he completed his education at Heidelberg, Germany; became a specialist in neurology and professor in Bellevue Medical College.

GREEN, Rev. WILLIAM HENRY, in Princeton, N. J., February 10; born in Groveville, N. J., January 27, 1825; graduated at Lafayette College in 1840; was tutor there for two years; graduated at Princeton Seminary, 1846, and was immediately appointed instructor in Hebrew; was ordained May 24, 1848; was pastor of Central Presbyterian Church of Philadelphia, 1849-1851, when he was chosen professor of Biblical and Oriental literature in Princeton Seminary; was moderator of the general assembly, 1891; was chairman of the Old Testament committee of the Anglo-American revision committee. As senior professor was official head of Princeton Theological Seminary, and in 1868 was offered the presidency of Princeton College, but declined it. He was a voluminous writer.

GUITNER, JOHN E., in Westerville, Ohio, September 4; born in Greencastle, Pa., January 21, 1841; graduated from Otterbein University in 1860; was tutor of ancient languages at Otterbein, 1862–1864; was professor of Latin from 1865–1867; was professor of ancient languages, 1867–1869, and filled the chair of Greek language and literature from 1869 until his death; was for a number of years treasurer and financial secretary of the college.

HALE, Miss LUCRETIA PEABODY, in Boston, June 12; born in Boston, September 2, 1820; was a sister of Edward Everett Hale. To her efforts in particular Boston was indebted for vacation schools and for the teaching of sewing and morals in the public schools. She was especially active in charities and was the author of many books and stories for children.

HAMLIN, Rev. CYRUS, D. D., educator, in Portland, Me., August 8; born in Waterford, Me., 1811; graduated at Bowdoin College in 1834, and at Bangor Seminary in 1837, and was missionary of the American board in Turkey from 1837 until 1860, when he became president of Robert College, Constantinople, which he had organized after a seven years' contest with Turkish authorities. In order to give employment to Armenians he introduced the making of bread with hop yeast. During the Crimean war this yeast was in great demand, and at its close he had cleared $25,000 which he expended on churches and schools. He resigned the presidency of Robert College in 1876 and became professor in Bangor Theological Seminary. He was president of Middlebury College from 1880 to 1885, when he removed to Lexington, Mass. He made the first steam engine built in Maine. He published translations in the Armenian dialect, and My Life and Times, and other works.

HAMMOND, WILLIAM ALEXANDER, M. D., in Washington, D. C., January 5; was born in Annapolis, Md., August 28, 1828; graduated at the medical department of the New York University, 1848; entered the Army in 1849 as lieutenant and became captain in 1854; October, 1860, he resigned, to become professor of anatomy and physiology in the University of Maryland. At the beginning of the civil war he resigned his chair and reentered the Army as assistant surgeon, and in 1862 was promoted to Surgeon-General, with the rank of brigadier, but in 1864 was tried by court-martial and dismissed from the service. In 1868 he became professor in the College of Physicians and Surgeons in New York City, and later filled chairs in Bellevue Medical College and in New York University. In 1882 he was one of the founders of the post-graduate medical school, in which he became professor of diseases of the mind. In the meantime the President and Secretary of War had been authorized to review the proceedings of the court-martial, and in 1879, after fifteen years, he was restored to his position and retired as brigadier-general. He wrote many books on nervous diseases.

HAMMONS, EVERETT, in Anoka, Minn., October 15; born in Cornish, Me., January 10, 1850; graduated at Bowdoin College, 1870. Studied law and was admitted to the bar in Minnesota in 1872 and to the Maine bar in 1873; taught successively at Paris and Hallowell, Me., and Princeton, Minn. Returned to Maine, and in 1874 and 1875 taught in Bethel, that State; was principal of the grammar school, Clinton, Me., 1877–1880; served also as secretary of the board of education.

HARVEY, FRANCIS L., in Orono, Me., March 6; born near Ithaca, N. Y., in 1850; graduated from Iowa Agricultural College; was president of that institution and was later connected with Humboldt College, Iowa, and Arkansas Industrial University.

HAZEN, HENRY A., meteorologist, in Washington, D. C., January 23; born in Serur, India, January 12, 1849; graduated at Dartmouth, 1871; was instructor

in drawing in Sheffield Scientific School of Yale University until 1875; 1875–1879 was assistant professor in meteorology. In 1881 was appointed computer in the United States Signal Service. In 1887 became one of the regular officers in this Department and made forecasts for the whole country. In July, 1891, was made professor of meteorology of the Weather Bureau. He devised a system for reducing barometric observations to sea level, a sling psychrometer, and a thermometer shelter. In 1888 he published Meteorological Tables, and The Tornado in 1890.

HENDRIE, JOHN W., philanthropist, in Sound Beach, Conn., November 25; born there November 18, 1821; graduated from Yale in 1851. In 1854 he went to California, where he amassed a fortune in business, after which he returned to his native town. His largest gifts were $15,000 to the Mercantile Library of San Francisco and $10,000 to the Academy of Arts and Sciences in that city, and $100,000 to Yale Law School.

HENNESSY, Rev. JOHN, in Dubuque, Iowa, March 4; born in Limerick, Ireland, August 30, 1825; removed to Carondelet, Mo., in 1847, where he studied theology. He was first settled at New Madrid, Mo., January 20, 1851. In 1854 he was called as vice-president and professor to Carondelet Seminary. In 1857 he became its president; was made bishop of Dubuque, Iowa, September 30, 1866, and archbishop September 17, 1893. He was instrumental in founding New Melleary Abbey and St. Joseph's College, Dubuque.

HENRY, WILLIAM WIRT, in Richmond, Va., December 5; born in Charlotte County, Va., February 14, 1831; graduated at the University of Virginia, 1850; was admitted to the bar, 1853; was president of the Virginia and also of the American Historical Society; was one of the trustees of the Peabody educational fund; was author of several works, but specially known for his Life of Patrick Henry, his paternal grandfather.

HENSHAWE, MARSHALL, in Amherst, Mass.; born in Bethany, Pa., October 3, 1820; graduated at Amherst, 1845. In 1846 taught Latin and Greek in Williston Seminary. He spent one year in Union Seminary, and was tutor in Amherst College two years, continuing also his theological studies, and was ordained February, 1849. Deciding to make teaching his life work, he became principal of Hopkins Academy, Hadley, Mass., 1849–50; of Pinkerton Academy, Derry, N. H., 1850–1852, and of Dummer Academy, Byfield, Mass., 1852–1859. From 1859 till 1863 was professor in Rutgers College, New Jersey; 1863–1877 was principal of Williston Seminary; 1877–1881 was in charge of a private preparatory school for boys in Newton, Mass. From 1881 to 1890 was lecturer on physics in Amherst College. He gave forty-five years of unremitting toil to the cause of education without the loss of a single day through illness.

HILL, NATHANIEL PETER, metallurgist, in Denver, Colo., May 22; born near Montgomery, N. Y., February 18, 1832; graduated at Brown University, 1856. For three years was instructor in chemistry there, and from 1859 to 1864 was professor. Later he developed a process of extracting gold and silver from matte; organized the Boston and Colorado Smelting Company and was made its general manager. Served a term as United States Senator.

HINSDALE, BURKE AARON, LL. D., educator, in Atlanta, Ga., November 29; born in Wadsworth, Ohio, March 31, 1837. At the age of 16 he entered the Eclectic Institute, which afterwards became Hiram College, where he remained the next thirty years of his life as student, professor, or president, and there made the acquaintance of Garfield. He often occupied the pulpit; was an associate editor. After serving as president of Hiram College twelve years he was chosen, on the resignation of W. H. Payne, to the professorship of the art and science of teaching in the University of Michigan, which position he held

until his death. He was a trusted educational leader and the author of a number of important books pertaining chiefly to the history of education.

HITCHCOCK, HIRAM, in New York City, December 30; born in Claremont, N. H., August 27, 1832; prepared for Dartmouth College, but by failing health turned aside to become a clerk in the St. Charles Hotel, New Orleans. In 1859, in association with others, opened the Fifth Avenue Hotel, New York. In 1866 he traveled extensively in the East and became interested in archæological researches. He promoted various learned and scientific bodies, and especially the American school in Athens. He built the hospital for the benefit of Dartmouth College, and also repaired the village church. He was especially active in advancing the interests of the Nicaraguan Canal.

HOFFMAN, JAMES H., in New York City, July 8; born in Sieligenstadt, Bavaria, November 5, 1833; was founder and president of the Hebrew Technical Institute, trustee of the Baron De Hirsch fund, and for more than thirty-five years prominent in Hebrew charities.

HOWE, EDWARD, in New York City, November 2; born in Portland, Me., March 8, 1820; graduated at Bowdoin College in 1841. His entire life was given to the study and practice of music, as private instructor, as teacher of music in Union Seminary, and as organist in several of the churches of New York City. His services at the Bethany Presbyterian Church and the Church of the Messiah extended over a period of forty years.

HUBBARD, OLIVER PAYSON, M. D., LL. D., in New York City, March 9; born in Pomfret, Conn., March 31, 1809; graduated at Yale College in 1828. For five years he was assistant of Prof. Benj. Silliman and aided Charles Goodyear in his experiments in vulcanizing india rubber until he was appointed professor at Dartmouth, 1836. He continued his medical-school lectures until 1883, when he was made professor emeritus. He supervised the building of the Shattuck Observatory in 1863. From 1867 to 1895 he was one of the overseers of the Thayer School of Engineering. In 1841 he shared in founding the Association of Naturalists and Geologists, and in 1848 the American Association for the Advancement of Science, becoming its secretary and vice-president between 1885 and 1892. He occasionally made contributions to scientific periodicals noted for their accuracy and valuable information. He published the History of the New Hampshire Medical Institution; the Chandler School; Account of the Seven Nineveh Slabs; sketches of the Yale class of 1828, of which he was a member; also college memorabilia.

HUGHES, EDWARD, in Wales, England, January 22, where he was born. He came to this country in early life, taught five years in Kentucky, and gave to the world the Hughes type-printing instrument for the telegraph.

HUMPHREYS, FREDERICK, M. D., at Monmouth Beach, N. J., July 8; born in Marcellus, N. Y., March 11, 1816; taught three years in Chillicothe, Ohio; was five years itinerant Methodist minister; studied homeopathy, and in 1853 became professor in a homeopathic medical college in Philadelphia.

HUNTINGTON, COLLIS P., near Lake Raquette, N. Y., August 13; born Harwinton, Conn., October 22, 1821; educated in the district school and remained on his father's farm until he was 14, when he started upon an independent career; in 1849 he went to California and engaged in the hardware trade; in 1860, with Leland Stanford, Charles Crocker, and Mark Hopkins, he matured a plan for a transcontinental railway; in 1886 he erected a church in Harwinton as a memorial to his mother, and in 1897 presented the celebrated portrait of Washington, by C. W. Peale, to the Metropolitan Museum of Art; he gave considerable sums to the institute at Hampton, Va., and to Tuskegee (Ala.) Institute $50,000 in 1899.

JESSING, Rev. JOSEPH, educator, in Columbus, Ohio, November 2, 1899; born in Münster, Westphalia, November 17, 1836; entered the Prussian army at an early age and served in the Schleswig-Holstein war; after coming to the United States he completed the theological course at Mount St. Mary's of the West; was ordained and assigned to the charge of the Sacred Heart Church in Pomeroy, Ohio; he devoted his attention and means to the education and support of homeless orphan boys, and established an orphan asylum at Pomeroy; he afterwards removed to Columbus and set to work to build up the Pontificium Collegium Josephinum de Propaganda Fide.

KEELER, JAMES EDWARD, Sc. D., astronomer, in San Francisco, Cal., August 12; born in Lasalle, Ill., September 10, 1857; in 1869 he removed with his parents to Mayport, Fla., where he soon began to show a fondness for the study of astronomy; 1875–1877 he had charge of the Mayport Astronomical Observatory in which were a quadrant, a 2-inch telescope, a meridian circle, and a clock; while there he constructed a meridian circle instrument; he graduated from Johns Hopkins University in 1881 and meantime accompanied the United States Naval Observatory expedition under Edward S. Holden that observed the solar eclipse of July 29, 1878, from Central City, Colo.; was appointed assistant at the Allegheny Observatory, Pittsburg, under Samuel P. Langley, whom he accompanied on his expedition to Mount Whitney, California; remained at the observatory two years, then spent a year in Heidelberg and Berlin pursuing higher scientific studies; in 1884 he returned to the Allegheny Observatory and aided Mr. Langley in his work on lunar heat and the infra red portion of the solar spectrum; was appointed assistant to the Lick trustees in 1886 and proceeded to establish a time system, also aiding in the installing of the instruments on Mount Hamilton, California; when the observatory was completed he was appointed astronomer and placed in charge of the spectroscopic work; in 1889 he observed the solar eclipse at Bartlett, Cal., and resigned in 1891 to become the director of the Allegheny Observatory and professor in the Western University of Pennsylvania, where he remained seven years continuing his spectroscopic work; in 1898 he became director of the Mount Hamilton Observatory, which place he held until his death; he received several medals and was greatly honored.

KINGSBURY, Mrs. HELEN B., at Santa Clara, Cal., October 22; born in New York; moved to Michigan in early life; taught to pay her way through Albion College, where she graduated in 1855, during the presidency of Dr. Sinex; taught successfully in Miles and Ann Arbor, and in 1863 accepted a position in Benicia, Cal.; in 1864 was elected preceptress of the Female College at Santa Clara, and became identified with the University of the Pacific, of which she was elected preceptress.

KNOX, Rev. CLARENCE EUGENE, D. D., in Point Pleasant, N. J., April 30; born in Knoxboro, N. Y., December 27, 1833; graduated at Hamilton College in 1856; pastor in Bloomfield, N. J., 1864–73; subsequently became president of the German Theological Seminary.

KOEHLER, SYLVESTER R., died in Littleton, N. H., September 15; born in Leipsic, Germany, February 11, 1837; wrote extensively on art subjects; was for many years curator of the printing department in the museum of fine arts, Boston, and also of the section of graphic arts in the National Museum at Washington, D. C.; he was a fellow of the American Academy of Arts and Sciences and lectured on engraving and etching; his publications were highly prized.

LANGLOIS, Rev. AUGUSTUS B., in St. Martinville, La., July 31; born in Department of the Rhone, France, April 24, 1832; came to the United States in 1855; finished his education at Mount St. Mary, Cincinnati, Ohio, and was ordained

in 1855; he settled in Louisiana, where he labored thirty years; as a boy he was interested in botany and gathered, in France, an herbarium of 1,200 plants; he renewed his study of the subject in Louisiana and became the leading authority on the flora of this region; he supplied many specimens to the scientific museum; several plants were named for him; his literary works were written in French.

LAWLER, Rev. FRANCIS X., in Alexandria, S. Dak., September 10; born in Ireland, January 22, 1822; removed with his parents to New York; studied for the priesthood and was ordained priest in 1845; was vice-president four years and president a like period of St. Mary's College, Marion, Ky.; was two years at Notre Dame, Ind., and later superior of St. Pius Seminary in Kentucky; he served as priest in Indiana and Kansas, from 1859 to 1881, when he went to Dakota where he became superintendent of the Yankton school.

LEWELLING, Ex-Governor LORENZO D., in Arkansas, Kans.; born in Salem, Iowa, December 21, 1846; was an orphan at 9 years; until he was 16 years of age he worked for neighboring farmers and attended the district schools during winters; at the age of 17 he went to Burlington and became a common laborer on the railroad; he was cattle drover and bridge builder in the war for the Union; studied at Knox College, Ill., and Whittier College, Salem, Iowa, where during his last two years he taught to pay his expenses; became a teacher in the reform school; in 1872 he and his wife took charge of the girls department of the reform school which they retained fifteen years; in 1887 he removed to Wichita, Kans., and five years later was elected governor of that State.

MCCORMICK, LEANDER J., in Chicago, Ill., February 20; born in Walnut Grove, Va., February 28, 1819; in 1871 he presented an observatory and a 24-inch refracting telescope to the University of Virginia.

MCGUIRE, HUNTER, in Richmond, September 19; born in Winchester, Va., October 11, 1836; graduated at the Winchester Medical College, 1855; was professor of the medical college of his native State, 1856–58, when he removed to Philadelphia; in 1865 he was called to be professor of surgery in the Virginia Medical College, where he remained till 1880; in 1885 was made professor emeritus in that institution; he organized St. Luke's Home for the sick, in Richmond, with a training school for nurses; he wrote on medicine and surgery.

MCMYNN, JOHN G., in Madison, Wis., June 5; born at Palatine Bridge, N. Y., July 9, 1824; graduate of Williams College, 1848; taught five years at Kenosha, Wis., and four years at Racine; was colonel of the Tenth Wisconsin Volunteers; in 1865 he built the Racine Academy, which under his direction became a prosperous preparatory school; he was regent of the State University of Wisconsin for twenty-two years, and State Superintendent of Public Instruction for four years, and was also one of the Board of Visitors at West Point.

MERRITT, Dr. SALOME, in Somerville, Mass., November; born in Templeton, Mass., February 22, 1843; studied in the common schools and Greenwich Academy, Rhode Island; she taught school; graduated in 1874 from the New York Free College for Women, and in 1875 became professor in the same college; in 1876 removed to Boston and remained in the practice of her profession until 1896; she was active in various clubs and other organizations for the promotion of charitable and educational efforts for the physical, intellectual, and moral education of children.

MERRITT, JOHN WESLEY, in Concord, N. H.; born May 9, 1808; graduate of Wesleyan University in 1834; in 1837 was elected president of McKendree College, Lebanon, Ill.; after four years resigned and returned East; in 1854 he was elected professor in the Methodist General Biblical Institute, Concord, N. H.

MITCHELL, Rev. EDWARD C., in New Orleans, March 2; born in East Bridgewater, Me., September 20, 1829; graduated from Colby College; was professor in Shurtleff College at Upper Alton, Ill., and in 1872, when the theological department was transferred to the University of Chicago, he was made professor of Hebrew in that institution; in 1876 he went to London, England, as professor in Regents Park College, serving there two years; in 1878 he established a Baptist theological school in Paris, where he remained four years; in 1883–84 he reorganized the colored schools of the South under Baptist auspices; in 1887 he became president of Leland University, New Orleans, La., where he remained until his death; he published Principles of Hebrew Grammar and Critical Handbook of the Greek New Testament.

MONTFORT, R. V. K., in Newburg, December 29; born in Fishkill Village in 1835; graduated from the Albany Medical College in 1856. In September, 1862, he entered the Federal Army as assistant surgeon in the One hundred and twenty-fourth New York Volunteer Infantry. He was present at every engagement of the Army of the Potomac, and was one of the five original officers who served with the regiment during the whole term of service. For forty years he was superintendent of the schools of Newburg.

MORROW, GEORGE ESPEY, educator, in Paxton, Ill., March 27; born in Cincinnati, Ohio, 1840; served in the civil war as a member of the Second Regiment, Ohio Volunteers. He graduated at the Law Department of the University of Minnesota, 1866; was editor of an agricultural journal 1866–1875. In 1876, was elected president of Iowa Agricultural College. In 1877, he became dean of the College of Agriculture of the University of Illinois, which position he retained until the close of 1896, when he accepted the presidency of the Agricultural College of Oklahoma, where he served till 1897.

MULHALL, M. G., statistician, December 12; born in 1836. In 1861 he founded the Buenos Ayres Standard, the first English daily paper printed in South America. He was a member of the British Association, and in 1884 took part in the Anglo-American Scientific Congress held in Philadelphia. His principal works were the Dictionary of Statistics, The Progress of the World, and The Industries and Wealth of Nations.

NASH, H. C., at Amherst, December 19; born in Hopkinton, N. H., February 21, 1829; graduated at Amherst College, 1851. From 1851–1854, was teacher at Mount Pleasant Classical Institute, and principal from 1874 to 1877. During this time he fitted some 800 young men for college or for business.

NORTHRUP, Rev. GEORGE W., in Chicago, December 30; born in Antwerp, N. Y., October 15, 1825; graduate of Williams College, 1854; studied theology in the Rochester Theological Seminary, and for ten years was professor of church history in that institution. He then became professor of systematic theology in the Baptist Theological Seminary at Chicago, and continued there until 1892. His name remained in the list of the faculty of the University of Chicago until his death.

NORTON, Rev. E. F., Ph. D., in Bath, N. Y., September 23; born in Cortland County, N. Y.; graduated at Yale, 1885; taught at Freehold, N. J., and Morrisville, N. Y., and in 1888 became professor in Olivet College, Michigan, where he remained until 1894; became pastor and preached for a period, when he resumed teaching in the State of New York.

OLSSON, Rev. OLOF, Ph. D., D. D., in Rock Island, Ill., May 12; born in Sweden, March 31, 1841; was educated at Upsala, Sweden, and entered the ministry of the Lutheran Church in 1863. In 1869 came to Kansas with a number of his people. In 1877 became professor at Augustana College, Rock Island, where he remained until 1888, when his health failing, he resigned. He became pas-

tor in Illinois, and in 1891 was called to the presidency of Augustana College and Theological Seminary.

OTTENDORFER, OSWALD, in New York, December 16; born in Moravia, February 26, 1826; was educated at Vienna and Prague; participated in the revolutionary movement and was condemned to death with Robert Blum, but he escaped and reached this country in 1850. He was employed on the Staats-Zeitung, of which, in 1858, he became editor in chief. He gave $300,000 to build an educational institution in his native town; founded the free library on Second avenue, New York, the Isabella Home for chronic invalids, and the woman's pavilion of the German Hospital.

PADDOCK, ROBERT H., in Detroit, Mich., March 19; born in Woodstock, Vt., February 18, 1814; graduate of Yale, 1837; taught in the Hopkins Grammar School, New Haven, Conn., 1838, and in New York City, 1839–40; graduated in medicine at Castleton, Vt.; 1843–1847 was professor and dean of the faculty of the Willoughby Medical College, Ohio; 1851–1853 was professor at Starling Medical College, Columbus, Ohio, and in 1854–55 professor at Berkshire Medical Institute.

PARK, Rev. EDWARDS A., D. D., LL. D., at Andover, Mass., June 4; born in Providence, R. I., December 29, 1808; graduated from Brown University in 1826, and at Andover 1831, and was ordained the same year at Braintree, Mass. In 1833 he became professor at Amherst College; 1836–1847 professor at Andover. In 1847 was appointed professor of Christian theology at Andover, which chair he held until 1881, when he was elected professor emeritus. He was one of the founders of the Bibliotheca Sacra, of which he was editor from 1871 to 1884. He was distinguished both as a preacher and a writer on theological subjects.

PARKER, HORACE, at Eliot, Me., December 11; born at Kittery, Me., November 16, 1815; graduated at Bowdoin, 1845. After graduation taught two years at Eliot Academy; was then purser twelve years in the United States Navy. He again taught in Eliot, 1860–1880; was principal of York County Free High School, and for nine years was superintendent of the Eliot schools.

PARKS, JOHN R., at Salt Lake City, September 29; was for a time president of the Utah University and died greatly lamented in the midst of his official term as State superintendent of schools. Several of the leading towns of the State honored him with special commemorative services.

PARR, S. S., St. Cloud, Minn., February 23; born in Dell Roy, Ohio, 1848; graduate of State normal school, Terre Haute, Ind.; was school superintendent, Marshall, Ill., 1872–1874; teacher in high school, Indianapolis, 1875–76; 1876–1881 teacher in normal school, Terre Haute. The next four years he was in educational work in Minnesota and edited School Education; 1885–1889 dean of normal department De Pauw University; was appointed superintendent of schools in St. Cloud, which position he held until his death.

PARSONS, DAVID, at Del Ray, Mich.; born in Oswego County, N. Y.; educated in the common schools and at the Regents Academy, Oswego County, N. Y.; began teaching at 16 years of age; was one of the founders of the Ohio State Teachers' Institute, of a normal school in Ohio, and of the Tafton Collegiate Seminary of Wisconsin. In 1864 he aided in grading the schools of Dubuque, Iowa, and subsequently aided in the development of the public schools of Freeport, Ill.

PARSONS, JAMES, in Philadelphia, March 21; born near Savannah, Ga., 1835; removed to Philadelphia, 1877; was engaged in the general practice of law, and for more than thirty years was professor in law school of Pennsylvania University and a well-known legal writer.

PATRICK, JOHN B., at Anderson, S. C., August 30; born in Barnwell County, S. C.; graduated at South Carolina Military Academy, 1855; 1856 became tutor in Furman University; in 1858 was professor at South Carolina Military Academy; was in the Confederate service during the civil war, and in 1866 became principal of the Furman University preparatory department; in 1869 resigned to take charge of the Peabody School at Greenville; in 1878 he organized the Greenville High School, changing the name to Greenville Military Institute and then to Patrick Military Institute.

PERKINS, Miss GRACE H., in Somerville, Mass., in April; born in Exeter, N. H.; graduated at Wellesley, 1894; taught four years in Arlington High School, and then became teacher in the Boston High School.

PHELPS, E. J., LL. D., diplomat, in New Haven, Conn., March 9; born in Middlebury, Vt., July 11, 1822; graduate of Middlebury College, 1840; taught school in Virginia; after studying a year at Yale Law School was admitted to the bar in 1843; practiced law in Middlebury; in 1851 became Second Comptroller of the United States Treasury; afterwards returned to Burlington, Vt., continuing his general practice and residence at Burlington; was professor in Yale Law School, 1881-1885, and also lecturer on constitutional law in Boston University; in 1885 he was sent as United States minister to England, where he remained four years; in 1893 he served in the Bering Sea court of arbitration, and on his return to this country resumed his chair at Yale Law School.

PIERCE, MOSES, in Norwich, Conn. He gave $100,000 to the American Missionary Society, New York City, to be known as the Edward Milburn Pierce fund, to be used for the education of colored common-school teachers in the South; another $100,000 was bequeathed in ten equal parts for the Norwich Free Academy, and $20,000 for the Rock Nook Childrens' Home, which he founded twenty years ago.

PORTER, Miss SARAH E., teacher in Farmington, Conn., February 18, where she was born August 17, 1813. She was a sister of President Noah Porter, of Yale College. She began her life work with a small day school for girls, which grew into a large seminary and attracted students from all parts of the United States.

PUTNAM, GRANVILLE B., in West Newton, Mass., March 9; born in Danvers, Mass., August 27, 1835; graduated from the Bridgewater Normal School and immediately began to teach. He afterwards graduated at Amherst College in 1861; in 1864 became submaster in the Bigelow School, Boston, and later master of the Franklin School, where he remained until his retirement. He was associate editor, with Professors Hagar and Kneeland, of the Massachusetts Teacher, and wrote for the New England Magazine, Youths' Companion, Wide Awake, Education, and other publications.

RAMBAUT, Mrs. MARY L. BONNEY, at Hamilton, N. Y., June 8; born in 1816; graduated at the Troy Female Seminary in 1835. In 1850 she founded the Chestnut Street Female Seminary in Philadelphia. In 1883 the school was moved to Ogontz and became known as the Ogontz School for Young Ladies. In 1888 Mrs. Rambaut retired from the active management of the school. In 1879 she became deeply interested in the Indians and started a movement for their support that ended in the Woman's National Indian Association. She sent out 7,000 copies of a petition protesting against the contemplated encroachments of white settlers upon the Indian Territory, which petition was circulated in fifteen States and resulted in a memorial which was forwarded to the White House, November 14, 1880, and subsequently presented to the House of Representatives. This memorial led to the Dawes Indian severalty bill.

RIDPATH, J. CLARK, historian, in New York City, July 31; born in Putnam County, Ind., April 26, 1841; graduated at Asbury, now De Pauw, University in 1863. Taught in his senior year in Thorntown Academy, Indiana, and after graduating was made its principal. In 1866 was elected superintendent of public schools, Lawrenceburg, Ind., and from 1869 to 1885 was professor in his alma mater, and vice-president of the university from 1879. After resigning his professorship he devoted himself to literary work and wrote a number of books.

RIPLEY, ERASTUS L., in Kansas City, September 11; born in Weybridge, Vt., February 14, 1822; graduate of Yale 1850. For seven years was principal of the public schools in Jackson, Mich., and for about the same length of time was professor in the Michigan State Normal School. In 1867 became principal of the college of normal instruction in the University of Missouri. He wrote and published a number of text-books.

ROBERTS, B. W., in Cambridge, Mass., June 27; born in 1817; he taught school more than fifty years.

ROGERS, FAIRMAN, civil engineer, in Vienna, Austria, August 23; born in Philadelphia, November 15, 1833; graduate of the University of Pennsylvania in 1853. While in college devoted himself especially to mathematics and mechanics and on graduation was appointed lecturer on mechanics in Franklin Institute, which place he held until 1865. From 1865–1871 he was professor of civil engineering in the University of Pennsylvania; 1871–1886 was trustee of the university; in 1878 gave the university a large library of works on engineering. At the beginning of the civil war was a member of the First Troop, Philadelphia City Cavalry, and was for a time its commander. Later served as volunteer engineer officer. Under the auspices of the United States Coast Survey he completed the survey of the Potomac River northward from Blakiston Island; was for many years manager of the Pennsylvania Academy of Fine Arts, and was one of a committee in charge of the exhibition building at the Centennial Exposition in Philadelphia. He wrote a number of scientific books.

SACHTLEBEN, AUGUST, in Charleston, S. C., January 11; born in Brunswick, Germany, March 5, 1824; graduated at Marburg University. When only 19 years of age he came to Charleston and was engaged as teacher of the classics in Coates Academy. During the war he taught in Columbia, S. C. Soon after the war he returned to Germany. From Germany he was recalled to South Carolina and appointed professor of modern languages in the University of South Carolina. While there he wrote the work by which he will be best remembered. "The Seven against Thebes." When colored students were admitted to the university he resigned his position and returned to Charleston, where he opened a private school. Was subsequently elected professor in the College of Charleston, where he remained until two years before his death, when he resigned on account of failing health.

SAYRE, LEWIS A., M. D., in New York City, September 21; born in Madison, N. J., February 29, 1820; graduated at Transylvania University, Kentucky, in 1837, and at the College of Physicians and Surgeons of New York, 1842. The office of prosector to Dr. Willard Parker, professor of surgery in that institution, was at once given him, which position he held until made emeritus prosector in 1852; 1853–1873 was surgeon at Bellevue Hospital; 1859 surgeon at Charity Hospital on Blackwells Island; was one of the active founders of Bellevue Hospital Medical College in 1861, and was made its professor of orthopedic surgery, which chair he retained until the college was consolidated

with the New York University, when he was made emeritus professor. He was the first American to remove the head of the femur in hip-joint disease. In 1876 he was sent by the American Medical Association as delegate to the International Medical Congress in Philadelphia, and in 1877 to the British Medical Association. In 1872 was made a knight of the Order of Wasa by Charles XIV, of Sweden and Norway, for his services to medical science. He invented many surgical appliances.

SCOVILLE, JOHN F., educator, in Brooklyn, N. Y., March 25; born in Sandy Hill, N. Y., May 9, 1812; graduated at Yale in 1832, and in 1833 became the first president of Oberlin.

SEYMOUR, Rev. C. H., D. D., in South Groveland, Mass., November 19; born in Watertown, Conn., 1829; was a graduate of Trinity College, Hartford. In 1850 was professor in Hamden Military School and in 1857 established a similar school in West Hartford. In 1854 he established the Wolcott School at Litchfield, Conn. In 1855 he was chosen principal of the Punchard Free School at Andover. In 1868 he went to Dubuque, Iowa, and later became president of Griswold College, Davenport, Iowa.

SHAKESPEARE, E. O., M. D., in Philadelphia, June 1; born at Dover, Del., in 1846; graduate of Dickinson College, Carlisle, Pa., in 1867; studied medicine at the University of Pennsylvania; was especially commissioned by President Cleveland in 1885 to investigate causes and condition under which Asiatic cholera thrives in Europe and India, and spent a year in that work.

SHELDON, WILLIAM E., in Boston, Mass., April 16; born in Dorset, Vt., in 1832; graduate of Middlebury College, Vermont; 1865 was the master of Hancock School of Boston, also taught in the New Britain, Conn., normal school and in schools in North and East Abingdon. Subsequently he engaged in journalism, and was assistant to A. E. Winship in editing and publishing The Primary Teacher and The Journal of Education. He was one of the organizers of the National Educational Association, and its president one year.

SHELLEY, WILLIAM H., near Penmar, Md., August 12; born on Hill Island, on the Susquehanna, in 1840; studied at Dickinson College, Carlisle, Pa.; began teaching in Lancaster County, Pa., and taught several years in Columbia and York counties, and for five years was professor in Albion College, Mich. In 1870 was elected the first superintendent of schools in York, Pa., and held the office for many years, grading the schools and establishing the high school; for a time was connected with the Woman's College of Baltimore, and later elected principal of the Girl's Latin School of that city, which position he held until his death.

SILCOX, Miss JULIA C., in Cleveland, Ohio, in August; born in Portsmouth, Ohio, in the year 1857. Occupied several positions in the Cleveland schools during her nineteen years of successful service.

SKENE, ALEXANDER J. C., M. D., in Highmount, N. Y., July 4; born in Fyvie, Scotland, June 17, 1837; graduated at the Long Island College Hospital in 1863; was surgeon in the Army 1863–64. He devised a scheme for a hospital corps which is now in use in the Army and the National Guard; in 1864 was appointed adjunct professor in the Long Island College Hospital; in 1872 was made professor of gynecology, and in 1886 became dean of the faculty of that institution. He wrote many medical works.

SMART, JAMES H., LL. D., in Lafayette, Ind., February 21; born in Center Harbor, N. H., June 30, 1841; was educated chiefly at the high school, Concord, N. H.; 1859–1863 taught in New Hampshire schools; 1863–1865 was principal of the intermediate school in Toledo, Ohio; 1865–1875 was superintendent of schools

in Fort Wayne, Ind. For six years was State superintendent of schools for Indiana. In 1883 became president of Purdue University and so remained until his death. For twenty-seven years was member of the Indiana State board of education. In 1870 was one of the United States commissioners to the Paris Exposition and for two years was assistant commissioner for Indiana to the Vienna Exposition. In 1881 was president of the National Educational Association, and in 1891 was appointed United States commissioner to the International Agricultural Congress at The Hague. He was the author of various reports and several books on educational topics.

SMITH, GEORGE W., at Winchendon, Mass., in February; born in 1862; graduated at Colby; was professor at Johns Hopkins, and was elected president of Colgate University, July 2, 1895.

SMITH, THOMAS SNELL, in Easthampton, Mass., December 17; graduated at Amherst College in 1866; after graduation was teacher in Williston Seminary; graduated at Bangor Theological Seminary in 1869. In the service of the American Board of Missions he was sent to the island of Ceylon and became there manager of the Jaffna board of education and was also in charge of the medical department until 1881; was principal of the Tillipally English Normal and Industrial School. For fifteen years he was in charge of other schools and of the general educational work in one of the missionary districts, comprising more than a hundred schools, attended by from eight to ten thousand children.

SMITH, WILLIAM MANLIUS, in Syracuse, May 4; born in Manlius, N. Y., September 26, 1823; graduate of Yale, 1844; was teacher in Manlius, 1846–47; studied and received M. D. at Pennsylvania University, 1849; practiced in Manlius. During the winter of 1872–73 lectured in New York College; 1877 was professor in Syracuse University.

STALLO, JOHN BERNHARD, lawyer, in Rome, Italy, January 6; born in Sierhausen, Oldenburg, March 16, 1823; came to the United States in 1839; taught in a private school in Cincinnati, and later was professor in St. John's College, Fordham, N. Y.; studied law, and was admitted to the bar 1849; served two years as judge of the court of common pleas. This position he resigned to resume his law practice. In 1885 he was appointed minister to Italy, which post he filled until 1889. His published works include General Principles of the Philosophy of Nature, Concepts and Theories of Modern Physics, Abhandlungen und Briefe; was a strong advocate of the retention of the Bible in the public schools.

STILLÉ, ALFRED, M. D., LL. D., in Philadelphia, September 24; born there October 30, 1813; graduated at the University of Pennsylvania 1832, and at the medical department in 1836; studied in Europe; returned to Philadelphia; became prominent as a physician; 1854–1859 was professor in Pennsylvania Medical College. He occupied the same chair in the University of Pennsylvania 1864–1884; 1865–1871 was also lecturer on clinical medicine; was active in the formation of the Medical Association, and was a writer of authority on medical subjects.

STOCKWELL, Rev. AUSTIN PARSONS, in Brooklyn, N. Y., November 21; born in Hadley, Mass., December 2, 1837; graduated at Amherst 1862; graduated in theology at Union Seminary in 1865; was superintendent of the industrial schools connected with the Children's Aid Society in Brooklyn from 1887 to 1893, and from 1893 to 1899 was superintendent of the Howard Mission, New York City.

TALBOT, EMILY (FAIRBANKS), in Holderness, N. H., October 29, 1900; born in Winthrop, Me., February 22, 1834. Taught in Augusta, Me., and Baltimore, Md.; married Dr. I. T. Talbot, of Boston, 1856. She was one of the organizers of the Massachusetts Society for the University Education of Women; founder of the Association of Collegiate Alumnæ; secretary of the education department of the American Social Science Association; secretary and one of the founders of the Round Table Club of Boston; an active leader in the movement which resulted in the establishment of the Boston Girls' Latin School.

TUPPER, Rev. HENRY MARTYN, in Ormond, Fla., September 12; born at Hardwick, Mass., June 10, 1830; graduated at Yale 1850; taught in Monson Academy, Massachusetts, and in Gates County, N. C.; also in Illinois College and in Griggsville, Ill.; studied theology and was licensed in 1866, and was successful in his various pastorates.

TYLER, Rev. MOSES COIT, LL. D., L. H. D., in Ithaca, December 28; born in Griswold, Conn., August 2, 1835; graduated at Yale in 1857; studied theology at Yale Divinity School and at Andover; in 1862, on account of ill health, gave up preaching; spent four years in England in literary pursuits, and during that time was a regular correspondent of The Nation; in 1867–1881 was professor in the University of Michigan; 1873–74 was also literary editor of the Christian Union; from 1881 to his death was professor in Cornell University. He was widely known for his literary works.

WEST, C. E., LL. D., in Brooklyn, N. Y., March 16; born in Washington, Mass., February 23, 1809; began teaching school when he was 18 years old; was specially devoted to the higher education of woman. He taught in Buffalo, and in 1876 established his school, the Brooklyn Heights Seminary, where he continued in charge from 1859 to 1889, the enrollment increasing to 600.

WHITE, MOSES CLARK, in New Haven, October 24; born July 24, 1819, in Oneida County, N. Y.; received his M. D. at Yale; was missionary to China; instructor in Sheffield Scientific School 1861–1864, and in Yale Medical School 1862–1867; later was professor at Wesleyan University. He was recognized as an authority in medical jurisprudence.

WHITMORE, N. MCLELLAN, in Gardiner, Me., February 26; born in Bowdoinham, Me., October 1, 1812; graduate of Bowdoin College, 1833; was instructor in the United States Navy one year; two years principal of Monmouth Academy, and of Waterville Institute an equal period; in 1838 was admitted to the bar.

WILLIAMS, S. G., at Ithaca, N. Y., May 9; born near Winfield, N. Y., 1827; graduate of Hamilton College, 1852; was principal of Groton Academy, Seneca Falls Academy, N. Y., and the Central High School of Cleveland, Ohio; in 1879 was elected professor of geology in Cornell University, and in 1886 became professor of pedagogy in the same institution; in 1898 he resigned and was made professor emeritus. He was the author of various publications, mainly on geology and pedagogy.

WILLIAMS, THOMAS A., botanist, in Takoma Park, D. C., December 23; born in Fremont County, Iowa, November 25, 1865; graduated at the University of Nebraska in 1889, and engaged in teaching; in February, 1891, he was appointed assistant in Dakota Agricultural College, where he remained six years, and for two years held a similar position in Columbian University, Washington, D. C. In 1896 he became assistant in the Agricultural Department at Washington, and edited the Asa Gray Bulletin.

WILSON, WILLIAM L., LL. D., educator, in Lexington, Va., October 17; born in Jefferson County, Va., May 3, 1843; graduated at Columbian College, Washington, D. C., in 1860; served as private in the Virginia cavalry; from 1865 to

1871 was professor in Columbian College; was admitted to the bar in 1866; in 1882 was elected president of the University of West Virginia, and the same month was elected to Congress, and resigned from the University; was five times reelected to Congress; in 1895 was made Postmaster-General, which position he held two years; in 1897 was made president of Washington and Lee University, which position he held until his death; for three years was one of the Regents of the Smithsonian Institution.

YERBY, JOHN D., in Mobile, Ala., August 10; born in Greensboro, Ala.; was a successful teacher in that city, and for five years superintendent of the city schools.

1901.

ABBOTT, CHAS. R., in Brooklyn, January 20. Was a teacher four years in Westchester, N. Y., then in grammar school in New York City; from 1859 to 1862 principal of Farnum Preparatory School, Beverly, N. J. From 1862 to 1869 was superintendent of schools in Kingston, N. Y. Became principal of grammar school in Brooklyn in 1869, and remained in that position until his death. Was one of the oldest teachers in that region.

ADAMS, HERBERT BAXTER, in Amherst, Mass., July 30; born in Shutesbury, Mass., April 16, 1850. Graduated at Amherst in 1872. In 1873 taught Latin and Greek in Williston Seminary. The next three years were spent in study in Europe. In 1876 he received the degree of Ph. D. from Heidelberg University. From 1876 to 1878 was a fellow in history at Johns Hopkins University. Was lecturer in history at Smith College from 1878 to 1881. Was trustee of Amherst College and of the Country School for Boys, Baltimore. Subsequent to 1887 was the editor of the Contributions to American Educational History of the United States Bureau of Education. Was the editor of the Johns Hopkins University Studies in Historical and Political Science, and the author of the Life and Writings of Jared Sparks, and of numerous historical and educational monographs. Was associate professor and professor of history at Johns Hopkins University from 1878 until his death.

ALEXANDER, JOHN E., January 21, in Monmouth, Ill.; born in Middletown, Frederick County, Md., March 4, 1833. Graduate of Franklin and Marshall College in 1853. In 1853–54 was professor of English in Landon Military Academy, Maryland. In 1857–58 was principal of the female seminary at Mercersburg, Pa. Studied law in Illinois and practiced his profession until 1900, when his health failed. Was for fourteen years secretary of board of trustees of Monmouth College, and was one of the founders of the Warren County Library and a member of the board of directors.

ALEXANDER, ROBERT, in Philadelphia, February 27; born in Belmont County, Ohio, in 1837. Graduated at Washington College, Washington, Pa., in 1855, and afterwards studied theology at Princeton and Edinburgh. Was pastor of First Presbyterian Church, St. Clairsville, Ohio, for thirty-two years. He was greatly interested in the educational work of the Presbyterian Church, and was for many years trustee of Washington and Jefferson College, and director of the Western Theological Seminary in Allegheny, Pa.

ALEXANDER, W. S., D. D., in Cambridge, Mass., May 15; born in Killingly, Conn., in 1835; graduated at Yale in 1858 and at Andover Theological Seminary in 1861; was pastor of a church in Pomfret, Conn., and also in Racine, Wis.; was many years a missionary in Italy and in the South. He was president of Straight University, New Orleans, for some years.

ALLEN, SIMEON OLMSTED, in West Springfield, Mass., April 22; born December 23, 1837, at Enfield, Conn. Graduated at Yale in 1865; studied at Yale Divinity School, from which he received the degree of B. D. in 1868, and was licensed to preach in June of that year. Was professor of mathematics at Olivet College.

ARMOUR, PHILIP D., in Chicago, Ill., January 6; born in Stockbridge, N. Y., May 16, 1832. He grew up in the country and was educated in the district school and at Cazenovia Academy, New York. In 1852 he started for the gold fields of California, traveling overland with three or four young companions, walking much of the way. He made several thousand dollars soon after reaching California by developing ditches to supply water for placer mining, and in 1856 he returned home with a fortune. Shortly thereafter he went West and with a brother-in-law established a large wholesale grocery house in Milwaukee. In this he was also successful, and in a year's time purchased the largest grain elevator in Milwaukee, then more elevators, and other property. He afterwards went to Chicago to take charge of a New York packing establishment, which soon came to be the largest packing and provision house in the world. The property interests for which Mr. Armour stood are estimated at $150,000,000. His personal share in this property is variously estimated at from $25,000,000 to $50,000,000. Of his many charities the most noted were the Armour Mission, the Armour Flats, and the Armour Institute, all in Chicago. The Mission was established by a bequest of $100,000 by Joseph Armour, which was more than doubled by Philip, his executor. The Armour Institute was established at an original cost of $1,500,000, to which sum Mr. Armour, in 1899, added $750,000.

ARMS, JESUP ADAMS, in Providence, R. I., March 9; born June 9, 1841, in Norwich, Conn. He left Yale College for the Army and received his degree later, in 1875; became regimental adjutant in 1862. In 1863 was captain on the staff of General Hartranft; was admitted to the bar in 1866; was editorial writer on the Philadelphia Times, also on the Examiner and Express, of Lancaster, Pa. In 1876 was appointed colonel on the staff of Governor Hartranft. In 1894 he represented the town of East Greenwich in the State senate. He was at one time superintendent of the public schools and president of the Free Library.

ASH, GEORGE WASHINGTON, in Kirkwood, Ill., March 5; born at Putney, Vt., December 31, 1808. Graduated from Amherst College in 1839 and from Andover Seminary in 1842. Was pastor at Halifax, Vt., and Westmoreland, N. H., also at Salisboro, N. H. Taught in various places in the South and West. Was principal of Washington Seminary, Richview, Ill., from 1869 to 1871; professor of languages at the Illinois Agricultural College, Irvington, Ill., from 1873 to 1875.

ATKINSON, WILLIAM R., in Williamsport, Pa., March 5; born in Alabama. Was a student at the South Carolina College, and left his studies to enter the Confederate Army. At the close of the war went to Virginia University. Taught school in Abbeville County. Studied for the Episcopal ministry; was appointed chaplain of the Virginia University; taught in Raleigh. Later took charge of the Charlotte Female College, where he achieved great success. In 1890 founded the Presbyterian College for Women in Columbia, South Carolina, which under his administration attained a high reputation.

BACON, CHARLES A., in Beloit, Wis., November 6; born in Brattleboro, Vt., in 1860. Graduate of Dartmouth College in 1883. In 1883 84 was instructor in science and mathematics in Hallowell Classical Academy, Maine. In 1884-85 taught in Wakefield, Mass. In 1885 he took charge of the new Smith Observatory at

Beloit College, where he spent several years in study and observation. He was a brilliant mathematician and astronomer, and his discussions of meteoric showers, sun spots, and eclipses gave him a wide reputation. For six years he had been physically helpless, but continued to teach his classes until his death.

BANCROFT, CECIL FRANKLIN PATCH, in Andover, Mass., October 4; born in New Ipswich, N. H., November 25, 1839. Graduate of Dartmouth College in 1860 and of Andover Theological Seminary in 1867. From 1860 to 1864 was principal of an academy at Mount Vernon, N. H. He studied at the University of Halle, Germany, and late in 1867 became principal of Lookout Mountain Educational Institution in Tennessee, where he remained till 1872. He was ordained in the Congregational ministry May 1, 1867, but never became a pastor. In 1873 became principal of Phillips Academy, Andover, Mass., where he remained until his death. He received the degree of Ph. D. from the University of the State of New York in 1874, that of Litt. D. from Williams College in 1891, and that of LL. D. from Yale in 1892. He was trustee of Andover Theological Seminary, and after 1897 of Dartmouth, and was active in many other educational, religious, and charitable institutions. He gave many addresses and wrote much for the periodical press on religious and educational subjects. At Phillips Academy he trained nearly 5,000 young men, fitting for college a larger number than have been prepared by any other principal or preparatory school in this country.

BARBOUR, VOLNEY G., in Minneapolis, Minn., June 4; born in Canton, Conn., June 2, 1842. Graduated at Yale in 1867. In 1868 was assistant in engineering at the Sheffield Scientific School. In 1869 was called to the professorship of civil engineering in the University of Vermont at Burlington, and filled that chair for thirty-one years; was also superintendent of the buildings and grounds. From 1886 to 1888 was special professor of sanitary science in the medical department of the university. Was city engineer of Burlington from 1871 to 1874, also in 1885–86. Was school commissioner from 1896 to 1900. For many years was director of the Mary Fletcher Hospital. Was a member of the Congregational Church, and served as private throughout the civil war.

BARKER, EDMUND PLUMMER, in Worcester, Mass., October 31; born in Mystic Conn., November 21, 1850. Graduated at Amherst College in 1876. He was principal of Deerfield Academy from 1876 to 1878; of Nichols Academy, Dudley, from 1878 to 1880; of Hopkins Academy from 1880 to 1883, and of Swampscott High School, all in Massachusetts. In 1890 was appointed superintendent of schools of the district which embraced Ayer, Littleton, and Westford, and a part of the time Harvard and Pepperell, which office he filled very acceptably until 1898, when ill health compelled his retirement. His school reports were valuable as historical and educational works. He was the founder of the Ayer Citizens' Course of Lectures, now known as the Ayer Lyceum.

BARNES, JEREMIAH ROOT, in Marietta, Ohio, January 1; born in Southington, Conn., March 9, 1809. Graduated at Yale College in 1834. Studied two years in Yale Theological Seminary. Was pastor in Evansville and Salem, Ind. In 1840 was financial agent for Marietta College. He preached eighteen months at Piqua, Ohio. In 1850 he established a young ladies' seminary in the suburbs of Cincinnati, and at the same time published the Western Magazine. He was one of the founders of Carleton College in Northfield, Minn. From 1861 until the close of the war was in the Freedmen's Bureau. He assisted in the preparation of Olney's Geography. In 1892 Yale conferred on him the honorary degree of M. A.

BARTLETT, G. M., in Knoxville, Tenn., October 23, aged 81 years. He was for twenty-one years president of Maryville College, Tennessee.

BATTERSON, JAMES GOODWIN, at Hartford, Conn., September 18; born in Bloomfield, Conn., February 23, 1823. At the age of 16 went to Ithaca as an apprentice in a printing house. During this service he began to fit himself for college, and later studied law, but the necessity for earning a livelihood became pressing and he abandoned this study and entered the employ of his father, who was a stone mason. He later became a manufacturer of monuments. In 1857 he constructed the Worth monument in New York City. He was president of the New England Granite Company. He invented a lathe for turning out granite columns. He erected the national monument at Gettysburg, the statue to Alexander Hamilton in Central Park, New York, and other noted memorials. He constructed the Masonic Temple and many great office buildings in New York, and the city hall of Providence. He will, however, be best remembered as the constructor of the Congressional Library at Washington and the State capitol at Hartford. He was founder and president of the Travelers' Insurance Company, and was called the father of accident insurance. He devoted much time to languages and geology. In the winter of 1858–59 he was in Egypt with the great engineer, Brunel. He became an authority on Egyptology and was appointed honorary secretary of the Egyptian exploration fund. He devoted many months to art while in Europe, and presented many rare and valuable paintings to the museums of Philadelphia and Hartford. He wrote essays on labor and capital, on taxation, and on scientific subjects. He also wrote poetry, and excited admiration by the felicity of some of his translations from the Iliad. In Greek and Latin he was more than proficient, and received the degree of A. M. from Yale and Williams. He was director of the Hartford National Bank, trustee of Brown University, and was a member of a number of societies—literary, historic, and scientific.

BEAMAN, WARREN HARRISON, in Amherst, Mass., February 26; born in Wendell, Mass., January 7, 1813. Graduate of Amherst College in 1837. Studied theology, and for thirty-one years was pastor at Hadley, Mass. For twenty-eight years was a member of board of trustees of Hopkins Academy, Hadley. From 1876 to 1884 was superintendent of schools at Hadley.

BELKNAP, CHARLES, in Baltimore, Md., June 15; born in Jersey City, August 26, 1846. Was appointed to the Naval Academy in 1864. Received his commission as ensign in 1868. Became commander December 6, 1896. Was one of the most efficient officers of the Navy. Was three times instructor in physics and chemistry, and later torpedo instructor at the Naval Academy. Was assigned to the command of the training ship *Dixie* December 4, 1899.

BENTON, GEORGE HENRY, in Minneapolis, November 16; born July 20, 1853, in Syria, Asia. Graduate of Yale in 1875. Professor in Little Rock, Ark. Last part of his life engaged in railroad service.

BILLINGS, SANFORD WATERS, in Sharon, Mass., December 30; born in Sharon, October 3, 1834; graduate of Amherst College in 1859. He was a teacher for more than thirty years. Taught a district school in his native town two years, when he organized the Stoughtonham Institute and was its principal for fifteen years. From 1878 to 1891 was principal of the Sharon High School; resigned to become superintendent of schools of the Provincetown-Harwich district, which office he filled with credit for two years; was four years member of the Norfolk County Teachers' Association, and president several terms; was town treasurer and trustee of the public library; was a member of the State legislature, and largely instrumental in securing the passage of the first Massachusetts free text-book law; was editor of the Sharon News.

BLISS, CHARLES ROBINSON, at Longmeadow, Mass., February 26; born there November 5, 1828; graduate of Williams College in 1854, and of Andover in 1858; preached four years in Beverly, and fifteen years in Wakefield, Mass. Declining health caused him to remove to Colorado, where he aided President Tenney in building up Colorado College; he also established preparatory academies in Utah and New Mexico; was professor in Colorado College; was made secretary of the New West Education Commission, and was editorial secretary of the Congregational Education Society.

BOLTON, CHARLES EDWARD, in East Cleveland, Ohio, October 23; born in South Hadley Falls, Mass., May 16, 1841; graduate of Amherst College in 1865. After graduation became manager of Hall's Safe and Lock Company for northern Ohio; was for some years vice-president and manager of the Cleveland Machine Company. He patented in this country and Europe several practical inventions. In the panic of 1873 he sustained very heavy losses, but instead of taking advantage of the bankruptcy laws he devoted himself for nearly twenty years to the work of paying his debts. He delivered more than 2,000 illustrated lectures, chiefly on subjects connected with his travels. In 1892 he engaged in real estate business and made a success of it. His study of wage-earners and his interest in them led him to establish the Cleveland Educational Bureau, which for several winters, in the tabernacle, each Saturday night, gave to large audiences educational entertainments of interest and profit. Talks were given by Mr. Bolton in 150 workshops of the city. He was several times mayor of East Cleveland. He published a few Civic Problems of Greater Cleveland, and a Model Village and Other Papers.

BRADBURY, JAMES WARE, in Augusta, Me., January 6; born in Parsonsfield, Me., June 10, 1802. Graduate of Bowdoin College in 1825. Was principal of Hallowell Academy for a year. For several months conducted a school for the instruction of teachers. He studied law, was admitted to the bar in 1829, and practiced his profession in Augusta. Was county attorney in 1835, delegate to the Baltimore convention of 1844, and in 1846 was chosen United States Senator from Maine. He was chosen overseer of Bowdoin College in 1850 and trustee in 1860. He received the degree of LL. D. from Bowdoin in 1872.

BROCKWAY, FRED JOHN, in Brattleboro, Vt., April 21; born in Sutton, N. H., February 24, 1860. He received the degree of M. D. in New York in 1887. Was two years in Roosevelt and Johns Hopkins hospitals. Was instructor in the College of Physicians and Surgeons, New York. Was author of Chemistry and Physics and a Compend of Anatomy.

BURLESON, RUFUS C., in Waco, Tex., May 13; born August 7, 1823, near Decatur, Ala. President of Baylor University at Independence, Tex., from 1853 to 1861, when he removed to Waco and established a coeducational school known as Waco University. Waco and Baylor were consolidated into Baylor University in 1885, Dr. Burleson being its president until 1897.

BURNHAM, Miss SARAH M., in Cambridge, Mass., August 24; born in Chester, Vt., 1819. Taught in the public schools of Cambridge from 1843 to 1879. Published various works.

BURROUGHS, GEORGE STOCKTON, D. D., LL. D., in Clifton Springs, N. Y., October 22; born in Waterloo, N. Y., January 6, 1855. Graduate of Princeton in 1873 and of Princeton Theological Seminary in 1877. Professor at Amherst from 1886 to 1892, when he became president of Wabash College, and after retiring from that office accepted the chair of Old Testament language and literature at Oberlin.

CAPEN, EDWARD, in Haverhill, Mass., October 20; born in Dorchester, Mass., October 20, 1821. Graduate of Harvard in 1843 and of Cambridge Divinity School in 1845. Was secretary of the Boston school board and librarian of the public libraries in Boston and Haverhill for forty-seven years, and was at the time of retiring the oldest librarian in the State.

CHASE, MILTON, in Boston, May 19; born in Haverhill, Mass., July 13, 1832. Graduate of Dartmouth in 1856. Read law, taught in the Lowell high school. Was principal of the Adams school in Dorchester, Mass., from 1857 to 1864. Later was in charge of the Davis school in Newton for two years. In 1866 became master of Dudley's boys' school in Boston, where he remained until 1901.

CHITTENDEN, ALBERT JEROME, in New Marlboro, Mass., February 4; born in Westbrook, Conn., July 26, 1838. Graduate of Ripon College, Wis., in 1868, and of Chicago Theological Seminary in 1874. Was nominated superintendent of public instruction. Taught in Wheaton College, Ill. Engaged in educational work in the South. Was author of several works.

CLARKE, STEPHEN WATKINS, March 13, at Spencerport, N. Y.; born in Naples, N. Y., April 24, 1810. Graduate of Amherst in 1837. Taught in Groton, N. Y., and elsewhere. Published several works on grammar and language.

COGSWELL, GEORGE, in Bradford, Mass., April 21; born in Atkinson, N. H., February 8, 1808. Graduate of Dartmouth Medical College in 1830. Was for fifty years trustee of Bradford Academy. Received his A. M. degree from Dartmouth. Was eminent in his profession and in his general relations to the public.

COOK, JOSEPH, in Ticonderoga, N. Y., June 24; born in the same town January 26, 1838. He studied at Keeseville, N. Y., and at Phillips Academy, and at Yale from 1858 to 1861, when illness interrupted his studies; later he entered Harvard as a junior, and graduated in 1865. Took the full course and a two years' post-graduate course at Andover Theological Seminary. Supplied several pulpits. Studied at Halle, Leipsic, Berlin, and Heidelberg, also traveled in Egypt, Syria, and Europe. In 1874, while residing in Boston, began giving his well-known Monday lectures, which continued through several seasons before large audiences. From 1880 to 1882 he was engaged in making a tour of Great Britain, India, Japan, and Australia, and in a journey of more than two years averaged more than one address on every other working day while on land. In 1895, on a second tour of the world, with his wife, he was interrupted by sudden illness in Australia. His last public appearance was at Haverhill, March 20, 1901. Was made LL. D. by Harvard in 1892. Was a member of the Victoria Institute, London. He published Biology, Transcendentalism, Orthodoxy, Conscience, Heredity, Marriage, Labor, Socialism, Occident, Religious Perils, and Defenses of the Lord's Day. He edited Our Day from 1888 to 1895.

CROCKER, MARGARET ELEANOR (RHODES), in New York City, December 1; born in Stark County, Ohio, February 25, 1823. Joined her husband in large charities and in beautifying the city of Sacramento. Gave works of art valued at $500,000 and a fine school building to that city, and endowed an old ladies' home in New York City.

CURRY, ROBERT, Ph. D., in Allegheny, Pa., December 13; born in Murraysville, Pa., June 8, 1821. Graduate of Washington and Jefferson College in 1848. Became principal of West Newton Academy, the normal school at Mansfield, and New Brighton Female Seminary. In 1873 was deputy superintendent of public instruction of Pennsylvania. Afterwards engaged in teaching in Nebraska.

DAGGETT, Mrs. LYDIA HILL, in Wyoming, October 2. She was engaged in educating the colored people under General Butler. She published the Heathen Woman's Friend, the organ of the Woman's Foreign Missionary Society of the Methodist Episcopal Church. She founded the Jesse Lee home in Alaska, and promoted the Lyndon Home for Indians in the State of Washington.

DE GROOT, Mrs. ANN B., in Mount Tabor, N. J., July 10; born in Mendham, N. J., February 28, 1813. Aided in establishing a home for the friendless in Newark, and established the Boylan Home for the education of colored children in Jacksonville, Fla.

DENFIELD, LEWIS E., in Waverly, Mass., March 23; born in Westboro, Mass., September 26, 1854. Taught in Fairfax, Vt., and in Wellesley, Mass.

DE PUY, W. H., D. D., in Canaan, Conn., September 4; born in Penn Yan, N. Y., October 31, 1821. Graduate of Syracuse University in 1845. Agent of the college and professor. Was the author of several books.

DICKINSON, FLAVEL A., in New Mexico, January 22; born January 8, 1820, in Chenango County, N. Y. Graduate of Yale in 1841. Taught at Delaware, Ohio, and Fayette and Pulaski, Tenn.

DICKINSON, JOHN W., in Newtonville, Mass., February 16; born in Chester, Mass., October 24, 1827. Graduate of Williams College in 1852. Taught in Westfield Normal School from 1852 to 1877, when he succeeded Dr. Joseph White as secretary of the State board of education. Was an indefatigable worker along the lines of developing the normal instruction of teachers and making efficient the system of the State in raising up good citizens. His opinions were greatly respected throughout the State. He was chairman of the local city committee and was associated with the Emerson School of Oratory.

DOHERTY, Rev. DANIEL H., S. J., in Boston, January 15; born August 3, 1858. Graduate of Boston College 1872. Taught in Woodstock, Md., College of St. Francis Xavier, New York, and College of the Holy Cross, Worcester.

DONNELLY, IGNATIUS, in Minneapolis, January 1; born in Philadelphia, November 3, 1831. Educated in the public schools. Attempted to show Bacon as the author of Shakespeare. In Congress was an earnest friend of the Bureau of Education, and advocated the planting of trees by the Government.

DRESSER, ALVIN C., at Portland, Me., April 26; born December 6, 1866, at Standish, Me. Graduate of Bowdoin College in 1888. He was principal of Gould's Academy, Bethel; of the Rockland High School, and of Brighton Academy. Later he engaged in the practice of law.

DUFFIELD, JOHN T., D. D., LL. D., in Princeton, N. J., April 10; born in McConnellsburg, Pa., February 19, 1823. Graduate of Princeton College in 1841. He entered Princeton Theological Seminary in 1844, and in 1845 was appointed tutor of Greek in Princeton. From 1847 to 1854 was adjunct professor of mathematics at Princeton, and in 1854 was appointed to a full professorship. He was an abundant contributor to religious literature, and served as pastor of the Second Presbyterian Church and president of the board of trustees of Princeton College.

EATON, JAMES WEBSTER, in Albany, N. Y., August 1; born in Albany, May 14, 1856. Graduate of Yale in 1879. Taught Latin and German in the Albany Boys' Academy. Was admitted to the bar in New York in 1882. Was professor of law in Columbia University. Was district attorney of Albany County for three years. In 1889 was appointed professor in the Albany Law School. From 1895 was treasurer of the school. Was lecturer in Boston University Law School. He published a number of works on law and was editor of American Bankruptcy Reports. Was long a member of committee on law reform of the State Bar Association.

EVARTS, WILLIAM MAXWELL, LL. D., in New York City, February 28; born in Boston February 6, 1818. Graduate of Yale in 1836. Was grandson of Roger Sherman. Taught school in Windsor, Vt. Was admitted to the bar in New York in 1841. In 1849 was appointed United States district attorney. He prosecuted the Cuban filibusters, afterwards conducted the Lemmon slave case. Was delegate to the National Convention at Chicago in 1860. Was at first for William H. Seward, and finally moved to make the nomination of Lincoln unanimous. Was elected to the United States Senate in 1885. During the civil war was engaged in most important legal cases, visited England and France semiofficially, and was the principal counsel for the defense of President Johnson in 1868; was afterwards made Attorney-General. In 1871 was counsel for the Government in prosecuting the Alabama claims. He was counsel for Henry Ward Beecher in his noted trial; his summing up lasted eight days. In 1877 he was the leading counsel of his party in the decision which made Mr. Hayes President, and began to publish the consular reports. In 1881 he was delegate to the International Monetary Conference at Paris. He delivered many orations on noted public occasions. Was trustee of the Southern education fund. He was a member of the Calvary Protestant Episcopal Church.

FAULHABER, OSCAR, in Haverhill, Mass., December 6; born in Isny, Wurttemberg, in 1832. Was educated at Stuttgart and Tübingen. Received his degree of Ph. D. at the University of Tübingen. Perfected his mastery of French in France. After a short residence in England, came to the United States, and was instructor in German and French at Harvard and professor of the same languages at Phillips Exeter Academy from 1874 to 1893, when he resigned. He afterwards taught in Robinson Seminary at Exeter.

FEE, JOHN G., LL. D., Presbyterian clergyman, in Berea, Ky., January 11; born in Bracken County, Ky., September 9, 1816. Graduate of Augusta College, Augusta, Ky., and also studied at Miami University, Oxford, Ohio, and Lane Seminary, Cincinnati, where he became so ardent an abolitionist that on returning home in 1844 he incurred his father's lasting anger by selling all his possessions and buying one of his father's slaves and setting her free. He then removed to Lewis County and there began his evangelistic work. The presbytery sought to suppress him. He suffered many indignities. He was fired at in his doorway. An assistant was flogged in his presence. While he was preaching at College Hill a mob of sixty surrounded the house with pistols and guns. He was dragged out and a man with a rope swore that he would hang him if he did not leave the county. But Fee persisted in his work and went on preaching, unarmed and unafraid. In 1848 the American Missionary Association came to his aid with $200 a year. Cassius M. Clay, who had, in 1853, bought a large tract of land in the Kentucky mountains with the intention of keeping it forever free from slavery, asked Fee to become the pastor of the district. Fee accepted and began the foundation of Berea College, open to all without regard to sex or color, which has now more than 800 students. Mobs repeatedly threatened to break it up, and the members of the colony were driven from their homes, but the work prospered in their hands. He built schoolhouses in the counties around, which were sometimes destroyed by fire. He lived to see opposition turned to favor.

FELLOWS, GEO. STEVENS, in Exeter, N. H., August 26; born in Galveston, Tex., November 4, 1859. Graduate of Amherst College in 1884. Teacher at Monson, professor in Maryland Agricultural College, and teacher in the high school, Washington, D. C. After teaching was engaged in mining onyx in New Mexico.

FISK, FRANKLIN W., D. D., LL. D., in Chicago, Ill., July 4; born in Hopkinton, N. H., February 16, 1820. Graduate of Yale in 1849. Was four years professor in the seminary at Beloit, Wis. Was appointed professor at Chicago Theological Seminary in 1858, which position he held until 1900, and was president of the institution the last thirteen years of his incumbency. Acted as pastor and served in various pulpits. Was author of a manual of preaching, and highly esteemed by the religious public. Olivet, Yale, and Beloit colleges honored him with doctorates. After resignation from his professorship was made professor emeritus.

FISKE, JOHN, LL. D., in Cambridge, Mass., July 4; born in Hartford, Conn., March 30, 1842. Graduate of Harvard in 1863, and of Harvard Law School in 1865. Lectured on positive philosophy at Harvard in 1869, and the following year was an instructor in that institution; was assistant librarian from 1872 to 1879, and was afterwards made member of the board of overseers. In 1881 he began an annual course of lectures at Washington University, St. Louis. He lectured on American history at University College, London, in 1879, and before the Royal Institution in 1880. After 1871 he delivered hundreds of lectures in the United States and Great Britain. He became a prominent expounder of the doctrine of evolution and published numerous historical and philosophical works. He was one of the editors of Appleton's Cyclopædia of American Biography.

FISKE, LEWIS R., D. D., in Michigan, February; born at Penfield, N. Y., December 24, 1825. Graduate of Ann Arbor in 1850. Professor in Albion College and then in State Normal School, and in 1856 in the Agricultural College, from which he entered the ministry in 1863; became president of Albion College in 1878, which office he held until his death.

FOSTER, FREDERICK F., in Weare, N. H., January 18; born in Winthrop, Me., November 3, 1843. Graduate of Dartmouth in 1865. Devoted himself to teaching in Maine, Massachusetts, and New Hampshire. Was very able in mathematics and languages.

FOSTER, RICHARD B., D. D., in Okarche, Okla., March 30; born in Hanover, N. H., October 25, 1826. Graduate of Dartmouth in 1851. Engaged in teaching at Jacksonville, Ill. Was a free-soiler, and in 1856 one of John Brown's company at Fort Titus, where a cannon was first fired in a free-soiler's fight. In 1862 enlisted in the First Nebraska Regiment, and afterwards became first lieutenant in the Sixty-third Colored Infantry, United States Volunteers. He was in command of the rear guard at the battle of Palmetto Ranch, May 25, 1865, said to have been the last battle of the war in which cannon were used. At the close of the war he established Lincoln Institute, Jefferson City, Mo., a school for freedmen. In 1872 he resigned and entered the ministry as a Congregational pastor in Kansas. From 1890 to 1894 was county superintendent of schools. From 1896 to 1899 taught in Kingfisher College, Oklahoma.

GARDNER, ANNA, in Nantucket, Mass., February; born there January 25, 1816. Was of Quaker ancestry. When a girl read the Liberator and became interested in the anti-slavery cause. In 1841 published the call for the first anti-slavery meeting in Nantucket, at which Frederick Douglass made his first public speech and electrified his audience. She delivered many lectures in the years immediately preceding the civil war, and after the war taught in the freedmen's schools in Virginia and North and South Carolina. Published a work of prose and poetry, entitled Harvest Gleanings.

GILLESPIE, Mrs. ELIZABETH D., in Philadelphia, October 13; born there January 5, 1821; great-granddaughter of Benjamin Franklin. Supervised hospital for wounded soldiers in the civil war. At the Centennial she was efficient on the

committee securing money and erecting and furnishing the Woman's Building. Was active among the poor in Europe. Led in organizing the Colonial Dames. Was interested in litigation to set aside the trusts provided for in the will of Benjamin Franklin, which failed.

GOBRECHT, WILLIAM H., in Washington, D. C., July 19; born in Philadelphia March 17, 1828. Graduate of Pennsylvania Medical College, March 7, 1849. Was appointed demonstrator of anatomy until he was transferred to the professorship. He rendered important service in the line of his profession during the war, and was honorably discharged in 1866 with the brevet rank of lieutenant-colonel. After the war he served as professor in a medical college in Ohio, and later was reference surgeon in the Pension Office.

GOODALE, JAS. H., at Monticello, N. Y.; born in Orange County, N. Y. Was devoted to the care of the poor; superintended building the county insane asylum and established the Children's Home in Middletown, N. Y.

GRAHAM, Rev. ROBERT, in Pittsburg, Pa., January 20; born in Liverpool, England, August 14, 1822. Graduate of Bethany College, Bethany, W. Va., in 1847. Taught in Kentucky and Ohio; was president of Hamilton Female College, Lexington, Ky., from 1869 to 1875; professor in Kentucky University from 1875 to 1897, and professor emeritus from 1897 to the date of his death.

GREEN, THOMAS PORTER, in Canastota, N. Y., July 4; born in Auburn, Mass., August 11, 1818. Graduate of Amherst College in 1836. Was mainly devoted to teaching; taught in Connecticut, Massachusetts, and Waterloo, N. Y., and later engaged in mercantile business.

HAILE, W. H., at Springfield, February 13; born in Chesterfield, N. H., September 28, 1833. Graduate of Dartmouth in 1856. In the State legislature and elsewhere promoted education. Was mayor of Springfield.

HALE, HORACE M., in Denver, Colo., October 24; born in Hollis, N. H., March 6, 1833. Graduate of Union College in 1856. Taught in New York and in Nashville, Tenn. Was county superintendent in Colorado, and from 1873 to 1876 Territorial superintendent of public instruction; while holding the latter office he drew the bill which became the fundamental school law of Colorado upon its admission as a State; in 1887 was made president of the State University.

HALL, FITZ EDWARD, LL. D., in Suffolk, England, February 1; born in Troy, N. Y., 1825. Graduated at Rensselaer Polytechnic Institute in 1842 and at Harvard in 1846. Was professor in India, and in King's College, London. Was a distinguished oriental scholar.

HARRINGTON, B. T., in Westchester, N. Y., December 13; born in Heath, Mass., June 1, 1826. Graduate of Amherst in 1852. Was a teacher for over fifty years.

HARRISON, BENJAMIN, in Indianapolis, Ind., March 13; born in Northbend, Ohio, August 20, 1833. Graduate of Miami University in 1852. Studied and afterwards practiced law. In 1860 was elected reporter of the State supreme court. Was colonel in the civil war; distinguished himself in various battles. Was member of the Mississippi River Commission. Was elected to the United States Senate and took his seat March 4, 1881. Was chairman of the Committee on Territories. Secured the passage of laws for Alaska. Was noted as an able debater. Was inaugurated as twenty-third President of the United States March 4, 1889. His administration was noted for the defense of American interests abroad and for the promotion of industry and prosperity at home. In 1892 was renominated for President and was defeated. Resumed the practice of law. Delivered a course of lectures at Stanford University. Was

counsel in international cases. Was appointed member of The Hague peace conference. Gave much time to church and beneficent work. He was a member of the committee on creed revision of the Presbyterian Church.

HERRICK, HENRY JUSTUS, in Cleveland, Ohio, January 28; born in Aurora, Ohio, January 20, 1833. Graduate of Williams in 1858. Was a surgeon in the Army. Was a prisoner in Libby, and after parole took part in Sherman's march to the sea. After the war settled in practice in Cleveland and became professor of medicine in Western Reserve University, and so continued until his death. Stood high in his profession.

HERTZOG, J. G., in Philadelphia, Pa., September 12; born in Bechtheim, Germany, January 2, 1831. Educated there. Teacher of languages from 1860 to 1864 in La Salle College, Philadelphia, and from 1877 until his death principal of a private school.

HILDER, F. F., in Washington, D. C., January 20; born in England. Was educated at Rugby, and entered the Indian service. He afterwards came to this country. His geographical eminence attracted attention and he was active in promoting education in this line. He visited the Philippines in the interest of ethnology, made valuable collections, and furnished interesting information.

HINTON, RICHARD J., in London, England, December 20; born there in 1830. Removed to the United States in 1851. Worked at his trade of mason; became topographical engineer; was journalist, lawyer, and author. Traveled in the South as the Confederacy was forming, and saw Jefferson Davis inaugurated. He served through the civil war; participated in the Cuban uprising in 1870. In 1886, as a labor expert, wrote for the Labor Bureau and for the Bureau of Education on education and labor. Was an ardent abolitionist.

HODGE, J. A., at Lincoln University, Chester County, Pa., June 23; born in Philadelphia, 1831. Graduate of the University of Pennsylvania in 1851, and of Princeton Theological Seminary in 1856. Was missionary instructor in Brazil. In 1893 became professor at Lincoln University.

HOFFORD, WILLIAM R., in Allentown, Pa., January 31; born May 8, 1833, in Lehigh County, Pa. Graduate of Franklin and Marshall College in 1855. Teacher at Mechanicsburg, Pa., and in Muhlenberg College. Was active in the ministry.

HOGAN, J. B., in Paris, France, September 30; born in Ireland June 24, 1839. Was a member of the Sulpician Community. In 1884 was installed director of St. John's Theological Seminary in Brighton, Mass. In 1889 became head of the divinity school of the Catholic University at Washington, but returned afterwards to Brighton.

HOLMAN, DAVID S., in Bangor, Me., May 13; born in Milo, Me., in 1826. He was a skillful microscopist, and became widely known through the Holman life-slides. In 1870 became connected with the Franklin Institute, Philadelphia, and was for fourteen years actuary of the society. He established at the institute a school of stenography and typewriting. He afterwards taught these branches at Girard College. Was employed in the oil-testing laboratories of the Atlantic Refining Company, and while there devised his "viscosimeter." He was a member of the Academy of Natural Sciences.

HOOPER, EDWARD W., LL. D., in Cambridge, Mass., June 25. Graduate of Harvard in 1859. Served in the Union Army. Became bursar and treasurer of the college and discharged the duties with skill and success.

HOPKINS, GEORGE OLNEY, at Chepachet, R. I., December 30; born in Scituate, R. I., January 20, 1835. Graduate of Brown University in 1861. Taught at

Woodstock, Danielson, and Mystic, Conn. Taught also in Maine, and was superintendent of schools in Rhode Island.

HOPKINS, SAMUEL M., at Auburn, N. Y., October 29; born in Geneseo, N, Y., August 8, 1813. Graduate of Amherst in 1832. Studied at Auburn and Princeton Theological Seminaries. Was tutor at Hobart College. In 1847 became professor at Auburn Theological Seminary, where he remained fifty-four years. Was moderator of the Presbyterian General Assembly at St. Louis in 1866.

HOYT, LEWIS T., in Germany, August 2: born in Connecticut. Made bequests in behalf of hospitals, asylums, the blind, and prevention of cruelty to children.

HUIDEKOPER, RUSH SHIPPEN, M. D., in Philadelphia, Pa., December 17; born in Meadville, Pa., May 3, 1854. Graduate in medicine at the University of Pennsylvania in 1877, and at the National Veterinary School. Alfort, France, in 1882. Returning to the United States, he became dean of the veterinary department of the University of Pennsylvania, and professor in the New York College of Veterinary Surgery. Served in the Spanish war as surgeon with the rank of lieutenant-colonel.

JACKSON, FRANCIS A., LL. D., in Overbrook, Pa., April 4; born in Northumberland, Pa., March 20, 1830. Graduate of the University of Pennsylvania in 1848. In 1855 he began service with the University as adjunct professor of Latin and Greek: in 1864 he was made professor of Latin, which chair he occupied until his death.

JAMES, CHARLES SEXTON, Ph. D., at Cascade, Mont., June 8; born at Philadelphia, February 9, 1821. Graduate of Brown University in 1843. Taught in Philadelphia, and in 1851 became professor at Bucknell University, in Pennsylvania. In 1882 became president of Monongahela College, Pennsylvania. Was engaged in educational work all his active life.

JAMES, H. M., August 5, at Chapel Hill, N. C.; born at Troy, Ohio, March 3, 1837. Graduate of Williams in 1861. Teacher in Cleveland, Ohio. Superintendent of schools at Omaha, Nebr., Portland, Oreg., and in Tacoma, Wash.

JANES, LEWIS G., in Greenacre, Me., September 5; born in Providence, R. I., February 19, 1844. Received the degree of A. M. from Brown University. Was president of the Brooklyn (N. Y.) Ethical Association from 1885 to 1896, instructor in history in Adelphi Academy in 1894 and 1895, and lecturer on sociology in the School of Political Science, Brooklyn, from 1893 to 1896. In 1896 became director of the Cambridge Conference and the Monsalvat School of Comparative Religion, and in 1889 president of the Free Religious Association. He published various books.

JOHNSON, WILBUR, in Canterbury, Conn., February 9; born in New York, March 1, 1831. Graduate of Yale in 1856. Taught in Massachusetts and Connecticut.

KENT, A. E., at Genoa, Nebr., January 8; born at Suffield, Conn., September 1, 1830. In 1885 furnished funds for the erection of the Kent Chemical Laboratory, and in his will left a liberal bequest for its enlargement.

KING, CLARENCE, in Phoenix, Ariz., December 24; born in Newport, R. I., January 6, 1842. He was for three years under Professor Whitney in the California geological survey. He made the first survey of the Yosemite Valley. Under the United States he was occupied five years (1867 to 1872) in making the "survey of the fortieth parallel." He detected the effort to salt certain lands with diamonds. He originated and promoted the plan for a permanent geological bureau, and after its establishment served for three years as its head. Was a member of the National Academy of Sciences.

KLEINSORGE, J. A., Ph. D., at Denver, March: born in Iowa. Received his Ph. D. degree from Jena, Germany. Graduated at Cedar Falls Normal School, and his short life was specially devoted to normal instruction. Was called to the New York State Normal School at Oswego, and at the time of his death was in charge of Training School and pedagogy of the normal school at Greeley, Colo. Was a young man of great promise.

KYLE, JAS. H., in Aberdeen, S. Dak., July 1; born in Xenia, Ohio, January 24, 1854 Graduate of Oberlin in 1878, and of the Western Theological Seminary, Allegheny, Pa., in 1882. Devoted himself to educational and pastoral work in Utah and Colorado. Was elected Senator from South Dakota in 1890, and was reelected in 1897. Was Chairman of Committee on Education and Labor.

LAY, JOHN FOOTE, September 27, in Batavia, N. Y.; born in Batavia, May 1, 1822. Graduate of Yale in 1841. Studied law and was admitted to the bar in 1844. Was secretary of the board of education for nine years, trustee of Batavia union school, and an active member of the committee which superintended the erection of its fine building, completed in 1874. Was afterwards appointed regents' examiner at the school.

LEAVENWORTH, ABEL E., in Castleton, Vt., June 3; born in Charlotte, Vt., 1828. Graduated at the University of Vermont in 1852, and became principal of Bolivar (Mo.) Academy. In 1855 took charge of Hinesburg (Vt.) Academy. Was editor and proprietor of the State School Journal and principal of the West Brattleboro Academy from 1859 to 1862, when he enlisted as sergeant in the Ninth Vermont Volunteers. Was appointed captain in 1864. From 1863 was assistant inspector-general of Wistar's brigade and assistant adjutant-general until 1865. After the war was again principal of Hinesburg Academy and later of Beaman Academy. In 1874 took charge of the normal school at Randolph, Vt., and in 1881 of Castleton Seminary and Normal School. For two years was president of the Teachers' Association of Vermont.

LE CONTE, JOSEPH, LL. D., in Yosemite Valley, Cal., July 6; born in Liberty County, Ga., February 26, 1823. Graduate of the University of Georgia in 1841 and of the College of Physicians and Surgeons in 1845. Began the practice of medicine, but left it to enter Lawrence Scientific School, Harvard, where he studied the natural sciences and geology under Louis Agassiz, receiving the degree of B. S. in 1851. Spent some time with Agassiz in exploring the reefs and keys of Florida. In 1852 was chosen professor of natural science in Oglethorpe College, but resigned in 1853 to accept a professorship in the University of Georgia. In 1856 became professor of geology and natural history in South Carolina College, where he remained until 1862, when college work was abandoned. During the war was chemist in the Confederate government laboratory and in the niter and mining bureau in Columbia, S. C. In 1866 again became professor in South Carolina College, but two years later joined the original faculty of the University of California as professor of geology, botany, and natural history, which chair he held until his death. Was member of the National Academy of Sciences and one of the editors of the Journal of Geology.

LINSLEY, JOSEPH H., in Burlington, Vt., February 17; born in Windsor, Vt., May 29, 1859. Graduate of the University of Vermont in the medical department in 1880. Was lecturer on physiology and instructor in microscopy and chemistry in that institution. Was appointed instructor in clinical microscopy in the New York Post-Graduate Medical School, and became director of laboratories in St. Luke's and Presbyterian hospitals. Later was professor in University of Vermont.

LYON, APPLETON P., in Mount Vernon, N. Y., November 27; born in Erie, Pa., June 12, 1840. At 16 was tutor in a normal school, Lebanon, Ohio, and later professor of mathematics in the same school. He studied at Brown, at Amherst, and at Union Theological Seminary. Was the friend and adviser of students and botanists. His library was one of the best botanical libraries in the United States, and was much used for reference. It contained at the time of his death 22,000 books and pamphlets and a collection of 265,000 classified pictures of plants, with texts, to compile which took Professor Lyon and his wife twelve years.

MAPES, WALTER DECKER, July 30, in Brooklyn, N. Y; born in Matamoras, Pa., September 26, 1863. Graduate of Williams College in 1886. Was instructor at Williams one year; at Central High School, Cleveland, for twelve years, and the last year of his life taught at Erasmus High School, Brooklyn.

MARKOE, THOMAS M., M. D., at East Hampton, N. Y., August 26; born in Philadelphia September 13, 1819. Graduate of Princeton in 1836 and of the New York College of Physicians and Surgeons in 1841. Was professor of surgery in the latter institution for thirty years (1860 to 1890).

MARSHALL, JOHN P., in Medford, Mass., February 5; born at Kingston, N. H., August 11, 1823. Graduate of Yale in 1844. Taught in Effingham, N. H., and in Chelsea and Danvers, Mass. In 1854 became professor in Tufts College, where he remained until his death.

MASSEY, JOHN E., in Charlottesville, Va., April; born in Spottsylvania County April 2, 1819. Studied at the Friends' School; was admitted to the bar; later was ordained Baptist minister. He served eight years (1890 to 1898) as State superintendent of public instruction.

MEEHAN, THOMAS, in Philadelphia November 19; born in England March 21, 1826. He was chiefly self-educated, and was at one time head gardener to Vernon Harcourt, Isle of Wight. He came to the United States in 1848; was active in promoting education in botany and horticulture, and was the first to succeed in flowering the Victoria regia in America. He was for twenty-three years senior vice-president of the Philadelphia Academy of Natural Sciences, and at one time a member of the board of visitors to Harvard College.

MESERVEY, ATWOOD BOND, at Hampton, N. H., February 21; born in Appleton, Me., September 30, 1831. Graduate of New Hampton Literary Institution, New Hampshire, in 1857, and of New Hampton Biblical School in 1860. Studied medicine at Bowdoin; was resident licentiate at Andover Theological Seminary, class of 1861, and studied at Brown University. Was ordained pastor in 1861. Was professor at New Hampton Literary Institution from 1862 to 1867; principal of Northwood Seminary, Northwood, N. H., from 1863 to 1868, and principal of New Hampton Literary Institution from 1868 to 1898. Received the degree of Ph. D. from Bates College in 1873, and that of D. D. in 1873. In 1867 was elected to the New Hampshire legislature.

MICHIE, PETER S., Ph. D., LL. D., at West Point, N. Y., February 16; born in Brechin, Scotland, March 24, 1839. Graduate of West Point in 1863; reached the rank of brigadier-general of volunteers; was highly esteemed as a professor at West Point, serving there until his death. Was the author of Elements of Wave Motion relating to Sound and Light, and of several other works. Was a member of the board of overseers of the Thayer School of Engineering of Dartmouth College.

MUHLENBERG, F. A., D. D., in Reading, Pa., March 21; born in Lancaster, Pa., August 25, 1818. Graduate of Princeton in 1836. Professor at Franklin College, Lancaster, Pa., and subsequently president of Muhlenberg College until

he resigned to become professor of Greek in the University of Pennsylvania. In 1891 accepted the presidency of Thiel College, Greenville, Pa.

MYERS, JOHN A., in San Francisco, April 10. Graduate of Bethany College, West Virginia. Studied at Berlin. Was instructor at Bethany and at Butler, Ind., also professor at the State University of Kentucky, which position he resigned to establish the agricultural experiment station in West Virginia.

NELSON, EDWIN, in Amherst, Mass., June 11; born in Upton, Mass., February 22, 1828. Graduate of Amherst in 1853. Taught on Long Island; was principal of Amherst Academy and of Litchfield (Me.) Academy, and teacher in Lowell, Mass.

NEWCOMB, GEORGE W., in Chicago, April; born in Putney, Vt., April 12, 1825. Graduate of Hamilton College in 1849. Taught in Sherburne, Ames, and Utica academies, New York. He subsequently engaged in the practice of law.

NEWCOMB, Mrs. JOSEPHINE LEMONIE, in New York City, in April; born in Baltimore of French descent. After the death of her only child she founded in her memory the H. Sophie Newcomb Memorial College for girls, an adjunct to Tulane University, New Orleans. She also built in Lexington, Va., a memorial chapel to Gen. Robert E. Lee.

NICHOLS, W. A., D. D., at Lake Forest, Ill., June 25; born at Buckland, Mass., April 4, 1808. Graduate of Amherst in 1834. Taught a family school at Lake Forest and published numerous works.

NICOLLET, S. EUGENE, S. J., in Mobile, Ala., December; born in Paris July 26, 1864. Came to New Orleans in 1884; studied at Woodstock, Md.; taught in Galveston and other places, and settled as chaplain of St. Mary's Orphan Asylum.

NINDE, W. X., D. D., LL. D., in Detroit, January 3; born in Cortland, N. Y., June 21, 1832. Graduate of the Wesleyan University, at Middletown, Conn. Entered the ministry; was professor and president of Garrett Biblical Institute, Illinois.

NORRIS, WILLIAM F., M. D., in Philadelphia; born in Pennsylvania. Graduate of the University of Pennsylvania in 1861. Served as surgeon in the civil war. Was professor of ophthalmology at the university at the time of his death.

PADDOCK, F. K., in Pittsfield, Mass., August 1; born in Hamilton, N. Y., December 19, 1841. Graduated in medicine at the Berkshire Medical College in 1864; subsequently became dean of the college faculty.

PAGE, JOHN R., M. D., at the University of Virginia, aged 71. Was a professor at the University of Louisiana and in the Medical College of Baltimore, Md. In 1873 became professor of agriculture, chemistry, and the science of farming. In 1887 resigned to resume the practice of the medical profession.

PARENT, Mrs. MARIE (McCOSKEY), in New Orleans; born in Liverpool, England, 1817. Principal of girls' school and of Parent's Academy, New Orleans, and later of the College de Maria in Cuba.

PERKINS, M. B., M. D., in Schenectady, N. Y., June 18; born in New London, Conn., March 14, 1836. Studied chemistry in Germany; taught in the Lawrence Scientific School of Harvard University and in Union College.

PERRY, W. F., December 17, in Alabama; born in Tuskegee, Ala. Taught at Talladega; served in the Confederate army; engaged in agriculture; removed to Kentucky, where he conducted a military school.

PILLSBURY, JOHN S., in Minneapolis, October 18; born in Sutton, N. H., July 29, 1828. Received a common school education. After several ventures in busi-

ness he engaged in flour milling with his nephew, Charles A. Pillsbury, in Minneapolis. With his brother, George A. Pillsbury, he furnished, in 1872, the capital for the flour-milling firm of Charles A. Pillsbury & Co., which became world-wide in its reputation. In 1863 he became one of the regents of the University of Minnesota; the same year he was elected to the State senate, where he served almost continuously until 1876, and then three terms as governor, until 1882. He became the watchful friend and supporter of the university, especially using in its behalf his official position as State senator and governor. The State failing to meet the necessities of the university, he aided it to the extent of $250,000. He built a home for aged women in Minneapolis, on the East Side, and a library there, and his charities were numerous. He was especially willing to help those who strove to help themselves. He erected a library in his native town in memory of his father and mother. In addition to these benefactions his gifts were numerous and unobtrusive. His ideas of citizenship were large, and he was constantly trying to fill them.

POLLOCK, Mrs. LOUISE, July 26; born in Erfurt, Prussia, 1832. Was zealous in the introduction of kindergartens; for over forty years was devoted to the work in Massachusetts and in the District of Columbia, translating, editing, teaching, and lecturing. Miss Susan Plessner Pollock is her daughter, and carries on her mother's work.

POPE, WILLIAM B., M. D., in Alabama, August, 1901; born in Mobile. Graduated at the Medical College of Alabama in 1834. Became eminent in medicine and was professor in the college.

PORTER, SAMUEL, in Farmington, Conn., September 2; born there January 12, 1810. Graduate of Yale in 1829. Was instructor of deaf mutes at Hartford and New York, and editor of American Annals of the Deaf and Dumb. Was for eighteen years professor in Gallaudet College, Washington, D. C., from which he retired as emeritus in 1884.

PORTER, THOS. C., D. D., LL. D., in Easton, Pa., April 27; born in Alexandria, Pa., January 22, 1822. Graduate of Lafayette in 1840 and of Princeton in 1843. Was professor in Marshall College, Franklin College, and Lafayette College; was a prolific writer.

POTTER, E. N., in the City of Mexico, February 6; born in Schenectady, N. Y., September 20, 1836. Graduate of Union College in 1861 and of the Berkeley Divinity School in 1862. Was rector of an Episcopal church in South Bethlehem, Pa., from 1862 to 1869; professor at Lehigh University from 1869 to 1871, and in 1871 was elected president of Union College. In 1884 accepted the presidency of Hobart College, where he remained until 1897.

PRATT, HIRAM A., in Faribault, Minn., November 22; born in Shutesbury, Mass., January 21, 1819. Graduate of Amherst College in 1848. Taught at Sheldon Falls, Mass., Norwalk, Ohio, Suffield, Conn., and Hartford and Hightstown, N. J. Was superintendent of schools at Faribault from 1877 to 1881, and teacher until he retired from active life.

RAAB, HENRY, in Belleville, Ill. Was of German descent. Served two years as superintendent of public instruction of Illinois.

RAY, JOHN W., at Eureka Springs, Ark., April 12; born in Chester, N. H., December 23, 1814. Graduate of Dartmouth in 1843; taught at Atkinson, Manchester, Pembroke, and Derry, N. H., and at Eastport, Me. Later was pastor in Goffstown, N. H., and elsewhere. Was superintendent of schools in Manchester.

REVELS, HIRAM R. (colored), in Aberdeen, Miss., January 16; born in Fayetteville, N. C., September 1, 1822. Was educated in the Friends' Seminary in

Indiana. Was a leader among the people; assisted in organizing colored regiments; followed the Federal Army to Jackson, Miss. Was elected to the Mississippi senate in 1869, and to the United States Senate in 1870, being the first colored member of that body. Was for a number of years president of Alcorn Agricultural University for Negroes, at Rodney, Miss.

RIGGS, ELIAS, in Scutari, Turkey, January 17; born in New Providence, N. J., November 19, 1810. Graduate of Amherst in 1829, and of Andover Theological Seminary in 1832. Was a missionary to Greece and Turkey until his death. He prepared standard translations of the Bible in Armenian and Bulgarian, and a Bible dictionary in Bulgarian. His publications are found in the Greek, Armenian, and Turkish languages. He was a great force in the education of those peoples.

ROUNDS, CHARLES COLLINS, Ph. D., in Farmington, Me., November 9; born at South Waterford, Me., August 15, 1831. From 1849 to 1853 he was a printer in Portland, Boston, and Cambridge; graduated from Dartmouth College in 1857. Was principal of the academy at South Paris, Me., from 1857 to 1859. From 1859 to 1865 was principal of a public school in Cleveland, Ohio. From 1865 to 1868 was teacher in the Edward Little High School, Auburn, Me., and was principal there from 1869 to 1883, when he resigned to accept the same position in the State normal school at Plymouth, N. H. Was at the head of this school for thirteen years, resigning to devote his whole time to lecturing and institution work. He was twice president of the New England Normal Association and of the normal department of the National Educational Association. In 1889 was State commissioner from New Hampshire to the Paris Exposition. Was member of the National Council of Education from its organization, its president in 1895, and member of its committee of twelve on rural schools. Dr. Harris said of him: "He is one of the best known and ablest of the normal school instructors and lecturers on pedagogy; he is a deep thinker and of a singularly well-balanced mind."

ROWLAND, H. A., Ph. D., LL. D., in Baltimore, April 16; born in Honesdale, Pa., November 27, 1848. Graduate of Rensselaer Polytechnic Institute, Troy, N. Y., in 1891. After a year employed in railroad engineering became a teacher in Wooster College, Ohio, and later returned to a professorship in the Polytechnic; in 1875 he was elected to the chair of physics in Johns Hopkins University; he spent a year in Europe, and was for some months under Helmholtz in Berlin, where he demonstrated that a moving charge of statical electricity has the same magnetic effect as a current. After his return to Baltimore he retained his professorship until his death. His researches and reports cover more than a hundred topics.

SADTLER, BENJAMIN, in Atlantic City; N. J., April 28; born in Baltimore, Md., December 25, 1823. From 1862 to 1875 was principal of the Lutherville college for women, and from 1876 to 1885 was president of Muhlenberg College.

SAFFORD, T. H., in Newark, N. J., June 13; born at Royalton, Vt., January 6, 1836. In his youth displayed extraordinary mathematical abilities. Graduated from Harvard in 1854, and was then employed ten years in the observatory there. Was connected with the United States Coast Survey, and in 1876 became professor of astronomy at Williams College, where he remained until his death.

SALISBURY, EDWARD E., LL. D., in New Haven, Conn., February 5; born in Boston, Mass., April 6, 1814. Graduate of Yale in 1832; studied oriental languages abroad, and became professor of Arabic and Sanscrit in Yale; was elected member of the Asiatic Society in Paris and of other similar societies; gave his valuable collections to the Yale library.

SCHOTT, CHARLES ANTHONY, in Washington, D. C., July 31: born in Mannheim, Germany, August 7, 1826. Graduate of the Polytechnic School in Carlsruhe in 1847 with the degree of C. E. A year later came to the United States and entered the office of the Coast Survey, in which he continued until his death. Was member of the National Academy of Sciences; represented the Government in international conferences; worked out the results of many observations for the Survey, and greatly promoted a knowledge of these facts in the United States.

SCUDDER, HORACE E., in Cambridge, Mass., January 11: born in Boston, October 16, 1838. Graduate of Williams in 1858. Devoted himself to literature, especially for the young. For eight years was editor of the Atlantic Monthly. Was author of a life of Lowell.

SEVERY, JAMES B., at Colorado Springs, March 5; born at Dixfield, Me., June 29, 1840. Received the degree of M. D. at Bellevue College in 1873. Was instructor in Bowdoin Medical College.

SHEARER, A. B., at Germantown, Pa., October 25; born September 18, 1837, at Montgomery, Pa. Graduate of Yale in 1862. Was principal of a classical school in Philadelphia for seven years.

SILL, JOHN M. B., in Detroit, Mich., April 6; born in Black Rock, N. Y., November 23, 1831. Graduate of Michigan Normal School in 1854; became professor in the same school, later principal, and afterwards superintendent of schools at Detroit. In 1873 was minister resident and consul-general for the United States in Korea.

SMITH, E. KENRICK, in Poultney, Vt., January 24; born at New Hampton, N. H., February 12, 1855. Graduate of Dartmouth in 1891 and of the Dartmouth Medical School. Taught at Meredith, Whitefield, Tilton, and Penacook, N. H., and later devoted himself to medicine.

SMITH, RICHMOND M., Ph. D., in New York City, November 11; born in Troy, Ohio, February 9, 1854. Graduate of Amherst in 1875. Studied in Germany, and in 1874 was appointed instructor in Columbia College. Devoted his attention to economics and was active in charity organizations.

SNEED, J. L. T., in Memphis, Tenn., July 29; born in Raleigh, N. C., May 20, 1820. Served in the Confederate Army. Was a judge of the Tennessee supreme court from 1870 to 1878. Published law reports, and was president of Memphis Law School for six years (1887–1893).

SPEAR, P. B., in Hamilton, N. Y., January 25. For over twenty years was connected with Colgate University, Hamilton, N. Y.

STANLEY, PHILIP E., May 19, in Lynn, Mass.; born in Phillips, Me., May 11, 1865. Graduate of Dartmouth in 1893. Taught in Blairstown, N. J., and Providence, R. I., at the Friends' School. Later was devoted to editorial work until his death.

STARKWEATHER, GEORGE P., in New Haven, March 21; born in New Haven July 13, 1872. Graduate of Yale in 1891. Was professor in Sheffield Scientific School.

STOCHIN, ABNER C., January 11, at Watertown, Mass.; born in Limington, Me. Graduate of Bowdoin in 1857. Devoted himself to teaching; was school principal at Monmouth and South Berwick, Me., and New Hampton and Penacook, N. H.

SUNDERLAND, BYRON, D. D., in Catskill, N. Y., June 30; born in Shoreham, Vt., November 22, 1819. Graduate of Middlebury in 1838 and of Union Theological Seminary in New York City in 1843. Taught school for a time; was installed Presbyterian pastor in 1845. In 1853 was called to the First Presbyterian Church of Washington, D. C. He was twice chaplain of the Senate.

He was devoted to charitable and educational work, and especially promoted the establishment of common schools in the District of Columbia.

THAYER, JAMES H., D. D., Litt. D., November 26, in Cambridge, Mass.; born in Boston, November 7, 1828. Graduate of Harvard in 1850 and of Andover in 1857. Was pastor for a time and chaplain during the war and afterwards professor in Andover Theological Seminary and Harvard Divinity School. Was member of the American Academy of Arts and Sciences, the American Oriental Society, and other learned associations, and Fellow of the Corporation of Harvard College. Was one of the American revisers of the Bible and was an extensive author of valuable works.

THOBURN, ISABELLA, in Lucknow, India, September 1; born near St. Clairsville, Ohio, March 29, 1840. Educated at Wheeling Female Seminary. Was many years president of the Lucknow College for Women and Girls.

TITCOMB, F. L., at Melrose, Mass., January 19; born at Providence, R. I., October 28, 1862. Graduate of Brown University in 1885. Was devoted to teaching. Was State assayer in Rhode Island and school principal at Everett and at Melrose.

TUFTS, JAMES, in Monson, Mass., April 29; born in Wardsborough, Vt., November 2, 1812. Graduate of Yale in 1838; studied at Andover. After a short pastoral term devoted himself to teaching in Vermont and Massachusetts. Was county superintendent of schools in Vermont.

TURNER, ALFRED, at Montague, Mass., December 7; born in Boston December 6, 1869. Was school principal in Sheffield, Mass., superintendent of schools in Rutland, Vt., summer school lecturer, and superintendent of schools in Montague, Mass., until his death.

TUTTLE, JOSEPH FARRAND, D. D., in Indiana, June; born in Bloomfield, N. J., March 12, 1818. Graduate of Marietta College, Ohio, in 1841, and of Lane Theological Seminary in 1844. Served in two Presbyterian pastorates. Was president of Wabash College from 1862 until he retired in 1892.

VAN SCOY, THOMAS, D. D., February 11, in Helena, Mont.; born in Indiana, February, 1848. Graduated from the Northwestern University, and immediately entered the ministry; was three years in Garrett Biblical Institute; was then called to the chair of Greek in Willamette University, at Salem, Oreg., where he remained for eleven years. In 1891 was elected dean of the Portland University, at Portland, Oreg., and during the last seven years was acting president. In 1898 he became president of the Montana Wesleyan University, at Helena. Was a member of the One hundred and fifty-fourth Indiana Volunteers, and served in the civil war.

VERY, LYDIA L. A., in Salem, Mass., September 10; born there November 2, 1823. Taught thirty-four years in Salem. Was a ready writer.

WEBSTER, W. N., at Vineland, N. J., December 27. Was the founder and for many years at the head of the Webster Military Institute at Norfolk, Va., and a fellow in the American Association for the Advancement of Science. He donated about $2,000 worth of books as a foundation for the public library at Vineland.

WHIPPLE, HENRY B., D. D., at Faribault, Minn., September 16; born in Adams, Jefferson County, N. Y., February 15, 1822. Ill health hindered him from taking a college course. Was ordained deacon in the Episcopal Church in 1849, and priest in 1850. Was rector in Rome, N. Y., and in Chicago. Became the first bishop of Minnesota in 1859. Promoted the establishment of St. Mary's Hall, for girls, and the Shattuck School for Boys at Faribault. Showed how the false dealings of the whites led to the Indian massacres in 1862. Became known as the "apostle to the Indians."

WHITE, GREENOUGH, at Sewanee, Tenn., July 3; born in Cambridge, Mass., 1863. Was educated at Harvard, and graduated at the Episcopal Theological School in Cambridge in 1892. His only pastorate was at St. James Church, West Hartford, Conn., 1893–94. Was professor of English literature in the University of the South at Sewanee, 1886–87, and of history and political economy at Trinity College, Hartford, Conn., 1893–94. He then returned to Sewanee, and was professor of ecclesiastical history there until his death. He was author of a number of valuable books.

WILLIAMS, ALONZO, in Providence, R. I., March 16; born in Foster, R. I., September 14, 1842. He worked in the cotton mills in his youth; served for a time in the Union Army; graduated from Brown in 1870; became professor there, and in 1892 was at the head of the Germanic Seminary. He was the author of technical works and lectures on the modern languages

WILLIAMS, W. G., D. D., died in December, at the age of 80 years. He was connected with the Ohio Wesleyan Institute from its foundation in 1844. As an author and educator he rendered the church great service. He was considered one of the ablest Greek scholars in the United States, and was ranked with the most learned men in the country.

WILSON, E. H., in Cambridge, Mass., November 29; born in Westmoreland, Oneida County, N. Y., October 4, 1839. Taught in Connecticut and New York, and was also superintendent of schools.

WING, LEONARD, in Denmark, Iowa, April 13; born in Ashfield, Mass., December 4, 1872. Graduate of Amherst in 1899. Was principal of Denmark Academy from 1899 until his death.

WOOD, CLARENCE DAVID, in Brooklyn, N. Y., January 7; born in Montreal, Canada, May 20, 1871. Graduate of Amherst in 1886. Taught in the Polytechnic Institute, Brooklyn; studied abroad, and after his return to this country was instructor at Brown University.

WOODS, ELIZA, in New York City, March 8; born in Belfast, Ireland, about 1850. Was assistant to Miss Lydia T. Wadleigh at the New York City Normal College, and succeeded her as lady superintendent and professor of ethics.

YOUMANS, W. J., M. D., in Mount Vernon, N. Y., April 10; born in Milton, Saratoga County, N. Y., October 14, 1838. Graduated in the medical department of the New York University in 1865. Was actively associated with his brother, Prof. Edward L. Youmans, in the publication of the Popular Science Monthly. Was active in promoting an appreciation of the importance of scientific education.

FOREIGN.

1899.

BECKER, ALBERT, professor of music and composer of famous church music in Berlin, Germany. Died January 10, 1899, in Berlin.

BERGER, JULIUS, teacher in Leipzig, Saxony, Germany, editor of Pädag. Revue and author of educational works. Died June 2, 1899, in Leipzig.

BENEKE, ALBERT, principal secondary school for girls, author of a language series, in Potsdam, Prussia, Germany. Died October 21, 1899, in Berlin.

BERTRAM, WERNER, school inspector, teacher, and clergyman in Wolfenbüttel and Brunswick, Germany, author of a school botany. Died December 1, 1899, in Brunswick.

BINDER, ERNST VON, chief of division of schools in Consistory of Wurttemberg, Germany. Died January 13, 1899, in Stuttgart.

BOLTSHAUSER, HEINRICH, teacher in Amrisweil, Switzerland, author of botanical and horticultural works. Died August 1, 1899, in Amrisweil.

BUCHDRUCKER, S., privy councilor and member Royal Consistory of Bavaria, Germany. Died January 29, 1899, in Munich.

BÜCHNER, LUDWIG, author of many works on natural science, defender of Darwin, and author of Kraft und Stoff (Force and Matter), professor in Munich, Bavaria, Germany. Died May 1, 1899, in Darmstadt.

BUCHWITZ, ALBERT, editor of Pädagogische Zeitung in Berlin, Germany. Died January 5, 1899, in Berlin.

BUNSEN, WILHELM, privy councilor, professor in University of Heidelberg, Baden, Germany; famous as an inventor and discoverer in the science of chemistry. Died August 16, 1899, in Heidelberg.

BUSCH, MORITZ, private secretary of Prince Bismarck; author of many works on historical subjects, in Berlin and Dresden, Germany. Died November 16, 1899, in Leipzig.

CLAUSEGGER, FRIEDRICH VON, professor of law in University of Gratz, Austria. Died February 24, 1899, in Gratz.

CLAUSMANN, KARL FRIEDR., principal of normal school at Weimar, Germany. Died April 6, 1899, in Weimar.

COSIJU, Prof. PETER JAKOB, born November 29, 1840, at Ryswick; obtained the doctorate degree in 1864 at Leyden University; professor at University of Leyden from 1879 on, in ancient Germanic languages; he published a Dutch grammar, collaborated on a Dutch dictionary, made a comparative grammar of the Dutch, English, and German languages; in 1888 he published an old Saxon grammar; in 1898–99 was made rector of the university at Leyden. Died September 2, 1899, at Leyden.

CREDNER, JOH. GEORG, principal of normal school in Bremen, Germany. Died November 3, 1899, in Bremen.

DIESEL, K. H. F., head teacher in Hamburg, Germany. Died November 12, 1899, in Hamburg.

DIETERICH, HERMANN, teacher in Cassel, Prussia, Germany, and member executive council National Teachers' Association. Died January 20, 1899, in Cassel.

EICHENBERG, KARL W., school inspector in Dresden, Saxony, Germany. Died September 19, 1899, in Dresden.

ELTERICH, JULIUS GUSTAV, councilor, and principal of normal school in Dresden, Saxony, Germany; author of numerous text-books. Died July 14, 1899, in Dresden.

FABER, ERNST, teacher and missionary in China, wrote on Chinese culture, worship, and philosophy. Died September 26, 1899, in Tsinchon, China.

FIEDLER, Dr. HEINRICH, principal of modern high school at Breslau, Prussia, Germany; member of the December Conference at Berlin. Died January 22, 1899, in Breslau.

FLECKEISEN, ALFRED, teacher in classical high school at Dresden, Saxony, Germany; editor of Yearbooks of Philology and Pedagogy. Died August 7, 1899, in Dresden.

FLÜGGE, HEINR. FRIEDRICH, principal of normal school in Bückeburg, Lippe, Germany; author of text-books for elementary schools. Died September 4, 1899, in Bückeburg.

FREILIGRATH, Mrs. IDA, widow of the poet Ferd. Freiligrath, many of whose poems she translated into English. Died February 6, 1899, at Forest Hill, London, England.

FÜNSLER, KARL, author of History of Religion in Switzerland. Died April 1, 1899, in Zürich.

GANSCH, JOHANN, school councilor, principal of normal school at Breslau and Aix-la-Chapelle, Prussia, Germany. Died November 3, 1899, in Aix-la-Chapelle.

GEHLERT, KURT, principal of the famous State school at Grimma, near Leipzig, Saxony, Germany. Died April 1, 1899, in Leipzig.

GEIDEL, WILHELM, professor in music conservatory at Stuttgart, Wurttemberg, Germany. Died October 14, 1899, in Stuttgart.

GERHARDT, CARL EMANUEL, principal of classical high school in Eisleben, Prussia, Germany. Died May 5, 1899, in Halle.

GILBERT, Dr. GUST., professor in classical high school in Gotha, Germany. Died January 3, 1899, in Gotha.

GROOS, ANTON, teacher in Darmstadt, Hesse, Germany; geologist of some note. Died June 7, 1899, in Mayence.

GROTH, HANS, teacher in Kiel, Sleswick-Holstein, Germany; author of numerous works in low German dialect. Died June 2, 1899, in Kiel.

GURLT, Dr. ERNST, royal medical councilor; author of numerous medical works; professor in University of Berlin, Germany. Died January 8, 1899, in Berlin.

HAFKRMANN, M., C. D., district school inspector in Leer, Prussia, Germany. Died July 16, 1899, in Leer.

HAFFNER, PAULUS LEOPOLD, professor of philosophy in Mayence, Hesse, Germany. Died November 2, 1899, in Mayence.

HAMPE, WILHELM, professor in mining academy at Klausthal, Prussia, Germany. Died January 11, 1899, in Haberstadt.

HANNACK, EMANUEL, principal of pädagogium (normal college) at Vienna, Austria, successor of Dr. Fr. Dittes. Died February 28, 1899, in Vienna.

HEIDKE, AUGUST, founder and promoter of teachers' aid societies in Berlin, Germany. Died March 12, 1899, in Berlin.

HEUBERG, HEINRICH, music director and composer in Frankfort-on-the-Main, Prussia, Germany. Died April 10, 1899, in Frankfort.

HOFFMEIER, R., city school superintendent in Harburg, Prussia, Germany; author of drawing books. Died March 2, 1899, in Harburg.

HOLLENBERG, WILHELM, principal of classical high school in Bonn, Rhenish Prussia, Germany. Died September 12, 1899, in Bonn.

JOHN, FRIEDRICH, music teacher; composer of 387 quartettes for male choirs, in Dresden, Saxony, Germany. Died August 13, 1899, in Dresden.

JUNGE, FRIEDRICH, principal of classical high school in Berlin, Germany; author of historical works. Died April 22, 1899, in Berlin.

KIEPERT, HEINRICH, famous geographer and author of school atlases; professor in University of Berlin, Germany. Died April 21, 1899, in Berlin.

KLAUS, Dr. KARL, professor in Vienna, Austria; author of text-book on zoology. Died January 18, 1899, in Vienna.

KÖGEL, RUD. GEORG, professor of philology and literature in University of Basel, Switzerland. Died March 5, 1899, in Basel.

KREIS, HANS KASPAR, teacher and popular writer on educational topics in Zürich, Switzerland. Died January 11, 1899, in Zürich.

LEIDENFROST, THEODOR, school councilor in Weimar, Germany. Died June 20, 1899, in Friedrichsroda.

LIE, SOPHUS, the great mathematician and exponent of mathematical theories. He became privat-docent in the University of Christiania; then professor. In 1886, after becoming world-famous, he was invited to Leipzig University as professor. Later he worked both at Leipzig and Christiania universities. Died February 18, 1899, in Christiania, Norway.

LÖBKER, GUSTAV, professor in Münster, Prussia, Germany. Died October 18, 1899, in Münster.

MAJUNKE, PAUL, editor of Germania, a paper which defended the Catholic clergy during the "Kulturkampf" in Cologne, Rhenish Prussia, Germany. Died May 21, 1899, in Hochkirch.

MORF, HEINRICH, principal of normal school at Winterthur, Switzerland; one of the most popular teachers and educational writers of recent years in Switzerland. Died February 28, 1899, in Winterthur.

MÜLLER, KARL, professor of natural science in University of Halle, Prussia, Germany. Died February 9, 1899, in Halle.

MÜLLER, Dr. MAX, professor in polytechnicum at Brunswick, Germany. Died January 3, 1899, in Brunswick.

NATORP, OSCAR, professor in high school of Mülheim (on the Rhine), Rhenish Prussia, Germany. Died January 5, 1899, in Mülheim.

NEUBAUER, KARL, principal of normal school in Cämmin, Prussia, Germany. Died February 26, 1899, in Cämmin.

NIEWÖHNER, HEINRICH, principal of city school in Duisburg, Rhenish Prussia, Germany; president Rhenish Teachers' Association. Died June 31, 1899, in Duisburg.

PAULICK, HERMANN, principal of continuation schools in Berlin, Germany. Died May 19, 1899, in Berlin.

PFEIL, HEINRICH, teacher and editor of musical publications in Leipzig-Gohlis, Saxony, Germany. Died April 17, 1899, in Leipzig.

PIERSON, WILLIAM, professor in Danzig, Prussia, Germany. Died August 19, 1899, in Berlin.

PLANCK, KARL, teacher of gymnastics in Stuttgart, Wurttemburg, Germany, author of books on that subject. Died February 14, 1899, in Stuttgart.

POLKO, ELISE, famous German author of juvenile literature in Munich, Bavaria, Germany. Died May 16, 1899, in Munich.

RAUCH, CHRISTIAN, professor and school councilor in Gotha, Germany. Died October 1, 1899, in Gotha.

RICHTER, Rev. UDO, teacher in Hamm, Prussia, Germany, author of juvenile fiction based upon local traditions of Westphalia, Germany. Died January 5, 1899, in Hamm.

RÖSELER, WILHELM, teacher in Hamburg, Germany, author of popular literature. Died January 23, 1899, in Hamburg.

RUSS, KARL, famous ornithologist, author of prominent works on natural science, in Berlin, Germany. Died September 30, 1899, in Berlin.

SCHEIBLER, KURT, privy councilor, professor of chemistry in agricultural university at Berlin, Germany; inventor of smokeless powder. Died April 2, 1899, in Berlin.

SCHIFF, EMIL, teacher at Rendnitz, Prussia, Germany, author of hygienic works. Died January 23, 1899, in Berlin.

SCHOMBERG, WILHELM, teacher and prolific writer of elementary text-books, in Sieten, Hesse-Nassau, Germany. Died January 8, 1899, in Cassel.

SCHÖNERMARK, OTTO, principal of royal high school for girls in Berlin, Germany. Died February 21, 1899, in Berlin.

SCHÖNHOFF, D., councilor of consistory in Hanover, Prussia, Germany. Died May 14, 1899, in Harburg.

SCHWARTZ, WILHELM, privy councilor, professor in Berlin, Germany; well-known author of historical text-books. Died May 16, 1899, in Berlin.

SILBERSTEIN, Dr. ADOLPH, teacher and author of books on philology and literature in Budapest, Hungary. Died January 12, 1899, in Budapest.

SITTL, KARL, professor of archæology in University of Würzburg, Bavaria, Germany. Died May 9, 1899, in Würzburg.

STEINTHAL, CHOPIN H., professor of philology in University of Berlin, Germany; author of many philological works of great note. Died March 14, 1899, in Berlin.

STRÜMPELL, LUDWIG, professor of philosophy and pedagogy at the University of Leipzig, Saxony, Germany; founder of the school of physiological psychology. Died May 19, 1899, in Leipzig.

SÜSSMANN, GEORG, principal of school in Hanover, Prussia, Germany: author of numerous educational pamphlets. Died May 15, 1899, in Hanover.

TIEMANN, FERDINAND, privy school councilor; professor in University of Berlin, Germany. Died November 14, 1899, in Meran, Tyrol, Austria.

VOIGT, OSKAR, principal of institution for the deaf at Weissenfels, Prussia, Germany. Died February 1, 1899, in Weissenfels.

WEBER, LEO, principal of burgher school in Bergreichenstein, Bohemia, Austria. Died June 29, 1899, in Bergreichenstein.

WEIDEMANN, GUSTAV, professor in University of Leipzig, Saxony, Germany; well-known authority on electricity and magnetism. Died March 24, 1899, in Leipzig.

WEISS, Dr. GUIDO, writer on educational topics in Frankfort-on-the-Main, Prussia, Germany. Died January 15, 1899, in Frankfort.

WEITRICK, ALOYS, principal of classical high school in Münster, Prussia, Germany. Died September 2, 1899, in Münster.

WEIZSÄCKER, KARL VON, professor of theology in University of Tübingen, Wurttemberg, Germany; author of works defending dogmas against modern criticism. Died August 13, 1899, in Tübingen.

WENGER, CHRISTIAN, teacher in Thun, Switzerland; author of Drawing in the Common Schools. Died March 22, 1899, in Thun.

WISLIZENUS, HERMANN, professor in the art school at Düsseldorf, Rhenish Prussia, Germany; painter of the famous painting in the imperial palace at Goslar-on-the-Rhine. Died April 25, 1899, in Goslar.

WOENIG, FRANZ WILHELM, teacher in Leipzig, Saxony, Germany; author of botanical treatises, especially of essays showing the connection between plant forms and art. Died January 16, 1899, in Leipzig.

WORST S., school inspector, principal of normal school in Ottweiler, Rhenish Prussia, Germany. Died September 17, 1899, in Wiesbaden.

ZÄNKER, E., school councilor in Mülhausen, Alsace, Germany. Died May 10, 1899, in Strassburg.

ZIEL, ERNST, principal of classical high school in Dresden, Saxony, Germany. Died February 16, 1899, in Dresden.

ZIMMER, KARL F. A., director of music, popular composer of musical text-books at Berlin, Germany. Died February 8, 1899, in Berlin.

ZITTEL, EMIL, author of religious works and reviser of Luther's translation of the Bible, in Karlsruhe, Baden, Germany. Died February 28, 1899, in Karlsruhe.

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ALTOM, Dr. BERNHARD, privy councilor, professor in forestry academy at Eberswalde, author of numerous works on natural history. Died February 1, in Eberswalde, Prussia, Germany, aged 76.

ARNOLD, GUSTAV, choir director at Lancaster, England; later musical director at Lucerne. Died September 29, in Lucerne, Switzerland, aged 50.

AUGUST, Dr. FRIEDRICH, teacher of mathematics in royal military school, author of text-books of mathematics. Died January 9, in Berlin, Germany.

BAUR, JACOB, teacher in Zürich and collector of folk songs. Died January 12, in Zürich, Switzerland, aged 71.

BECKER, Dr. FERDINAND, royal school councilor at Berlin. Died May 4, in Berlin, Germany, aged 50.

BEHRENS, FRIEDRICH, principal of orphan school at Brunswick, president teachers' association. Died September 16, in Brunswick, Germany, aged 78.

BEHRINGER, EDMUND, royal councilor, author of religious works. Died November 13, in Würzburg, Bavaria, Germany, aged 72.

BEYER, Dr. KARL, teacher in high school and librarian at Erfurt. Died July 17, in Erfurt, Prussia, Germany, aged 52.

BEYSCHLAG, JOHANN H. CHR. W., university professor of theology at Halle. Died November 25, in Halle, Prussia, Germany, aged 77.

BRÜGGEMANN, Rev. FRANZ, author advocating Bible study. Died March 25, in Kettwig, Rhenish Prussia, Germany.

BUCHNER, Dr. WILLIAM, principal of city high school for girls, literary critic. Died January 20, in Eisenach, Thuringia, Germany, aged 73.

BUSEMANN, E. H., rector of city school in Leer, president Provincial Teachers' Association. Died April 12, in Leer, Oldenburg, Germany.

DRETZER, Dr. EUGEN, professor in university at Berlin. Died March 6, in Berlin, Germany, aged 59.

ECKSTEIN, Dr. ERNST, German poet and novelist. Died November 18, in Dresden, Saxony, Germany, aged 55.

EICHENDORFF, HEINRICH, Baron VON, only son of the German poet Eichendorff. Died May 18, in Bonn, Rhenish Prussia, Germany, aged 80.

ELM, HUGO, teacher in technical school at Dresden, author of books on manual training. Died May 17, in Dresden, Saxony, Germany, aged 57.

FALK, Dr. PAUL L. A., Prussian minister of education from 1872 to 1879, later chief judge supreme court of Westphalia. Died July 7, in Hamm, Prussia, Germany, aged 73.

FLATHE, Dr. THEODOR, professor in Fürstenschule at Meissen, author of text-books. Died March 26, in Loschwitz, Saxony, Germany, aged 73.

FLÜGEL, GUSTAV, director of music, organist, and composer of church music. Died August 15, in Stettin, Prussia, Germany, aged 88.

FÖRSTEMANN, Dr. JOSEPH, court councilor, librarian, and archivarian in university at Leipzig. Died December 20, in Leipzig, Germany, aged 59.

FRANK, ALBERT BERNHARD, royal councilor, professor in agricultural college at Berlin. Died September 28, in Berlin, Germany, aged 61.

GODET, FRIEDRICH, professor in academy at Neuchatel, Switzerland. Died October 29, in Neuchatel, aged 88.

GOLDBECK, Dr. KARL, professor and director of Charlotte School at Berlin. Died September 24, in Berlin, Germany, aged 70.

GRABEN-HOFFMANN, GUSTAV, professor of music, composer of very popular songs. Died May 21, in Potsdam, Prussia, Germany, aged 80.

GUMPRECHT, Dr. OTTO, noted musical reviewer. Died January 6, in Meran, Austria, aged 77.

HARTIG, A. KARL ERNST, professor in technological university at Dresden; editor of Civil Engineer. Died April 24, in Dresden, Saxony, Germany, aged 64.

HARTMANN, Dr. JOHANN P. E., director of Royal Conservatory of Music at Copenhagen. Died March 10, in Copenhagen, aged 95.

HENTSCHEL, AD., school inspector at Brunswick; author of many works in which practical education was advocated. Died April 8, in Brunswick, Germany, aged 59.

HERRING, GUSTAV ADOLPH, principal of city school and inventor of school appliances. Died April 17, in Auerbach, Saxony, Germany, aged 42.

HERZOGENBUSCH, HEINRICH VON, noted musical composer. Died October 9, in Wiesbaden, Prussia, Germany, aged 57.

JÄGERS, Rev. FR. HEINRICH, pastor and school superintendent in Cologne. Died November 26, in Cologne, Rhenish Prussia, Germany, aged 68.

JÄHNS, Dr. MAX, professor of history in military academy at Berlin. Died September 19, in Berlin, Germany, aged 63.

KARSTEN, Dr., royal councilor and professor in university at Kiel. Died March 16, in Kiel, Prussia, Germany.

KASSEBEER, FRITZ, teacher, writer of folklore stories. Died September 5, in Hildesheim, Prussia, Germany, aged 39.

KELLER, JACOB, principal of normal school. Died December 1, in Wellingen, Switzerland, aged 57.

KIRCHNER, Dr. FRIEDRICH, head master of classical high school in Spandau; author of numerous text-books, literary, philosophical, and religious. Died March 6, in Berlin, Germany aged 52.

KÖNIG, Dr. ROBERT, rector of girls' higher school in Zeitz; editor of Daheim. Died April 8, in Potsdam, Prussia, Germany, aged 72.

KRÄHE, Dr., city school superintendent in Berlin and Halle. Died March 3, in Halle, Prussia, Germany.

KRIEG, Dr. HEINRICH, royal councilor and professor in Dresden. Died February 10, in Dresden, Saxony, Germany, aged 65.

KRÖNLEIN, FRIEDRICH, teacher in normal school at Nisky, Silesia; author of readers and other text-books. Died January 18, in Freiburg, Baden, Germany, aged 51.

KYM, LUDWIG, professor in university at Zürich; author of work on metaphysics. Died May 4, in Zürich, Switzerland, aged 78.

LAMPE, E., school inspector. Died August 18, in Lautenthal, Prussia, Germany, aged 96.

LÖBE, Rev. Dr. JULIUS, author of philological works. Died March 27, in Rasephas, near Altenburg, Germany, aged 95.

MEIER, AUGUST, school principal and author of religious text-books. Died May 22, in Erdmannsdorf, Germany, aged 86.

MELCHERS, K., head master in Oldenburg. Died March 22, in Bremen, Germany, aged 54.

MENZEL, OSCAR JULIUS, royal councilor and school superintendent at Strassburg. Died March 15, in Strassburg, Alsace, Germany, aged 72.

MEYER, Dr. GUSTAV, professor of Sanskrit and comparative philology at Prague, Bohemia. Died August 29, in Gratz, Austria, aged 50.

MOESER, Dr. ALBERT, professor in university at Göttingen, author of books on literature. Died February 27, in Dresden, Saxony, Germany, aged 65.

MOMMSEN, A. TYCHO, principal of high school at Frankfort-on-the-Main. Died November 30, in Frankfort, Prussia, Germany, aged 81.

MÖNCH, HUBERT, head teacher, author of lyric and dramatic poetry, also educational works. Died September 6, in Boppard, Rhenish Prussia, Germany, aged 66.

MÜLLER, Dr. FRIEDRICH MAX, professor in university at Oxford, England, famous philologist. Died October 28, in Oxford, aged 77.

NADT, HEINRICH, teacher in normal school at Verden, author of numerous textbooks. Died May 11, in Verden, Hanover, Germany, aged 76.

NIETZSCHE, FREDRICH WILLIAM, professor of philology at Basel. Died August 25, in Basel, Switzerland, aged 56.

PARISIUS, LUDOLF, member Prussian Diet and German Reichstag, author of historical, educational, and sociological works. Died March 11, in Berlin, Germany, aged 73.

PATUSCHKA, FR. ALBERT, rector city school at Schmölln, author of works on civics. Died March 31, at Schmölln, Prussia, Germany, aged 49.

PICHLER, ADOLF, professor of mineralogy and geology in university at Innsbruck. Died November 15, in Innsbruck, Tyrol, Austria, aged 81.

PURTSCHELLER, LUDWIG, noted teacher of gymnastics. Died March 3, in Berne, Switzerland, aged 50.

PUTTKAMER, ROBERT VICTOR VON, Prussian minister of education, later minister of the interior and governor of Pomerania. Died March 15, in Karzin, Prussia, Germany, aged 72.

REBLING, FRIEDRICH, teacher in music conservatory at Leipzig. Died October 15, in Leipzig, Saxony, Germany, aged 65.

REDLICH, Dr. KARL CHRISTIAN, rector of city school at Hamburg, author of works on history of literature. Died July 27, in Hamburg, Germany, aged 68.

REUSCH, FRANZ HEINRICH, professor of theology in University of Bonn, wrote numerous religious and historical books. Died March 3, in Bonn, Rhenish Prussia, Germany, aged 75.

RIECKE, HEINRICH, school superintendent and principal of normal school. Died March 24, in Schwerin, Mecklenburg, Germany, aged 46.

ROSENSTENGEL, WILLIAM HEINRICH, professor of German and literature in State University at Madison. Died November 12, at Madison, Wis., aged 58.

RUETE, HERMANN, royal school councilor at Frankfort-on-the-Oder. Died September 30, in Frankfort, Germany, aged 55.

SARWEY, Dr. VON, minister of education in Wurttemberg. Died March 31, in Stuttgart, Wurttemberg, Germany, aged 80.

SCHENKL, Dr. KARL, professor in university at Gratz, author of many philological and archeological works. Died September 20, in Gratz, Austria, aged 73.

SCHIMMELPFENG, Dr. GUSTAV, principal of famous classical high school at Ilfeld a. H. Died December 29, in Blankenburg in the Hartz Mountains, Germany, aged 71.

SCHMIDT, Dr. IMMANUEL, professor in military academy, author of philological works. Died in May 14, in Gross-Lichterfelde, near Berlin, Germany, aged 77.

SCHRÖER, Dr. KARL JULIUS, school inspector in Vienna. Died December 16, in Vienna, Austria, aged 75.

SCHROELER, Dr., district school inspector in Kosel, Silesia. Died January 1, in Oppeln, Germany.

SCHUMANN, Dr. JOHANN C. G., school councilor in Saxony, author of pelagogical works. Died June 20, in Wernigerode, Prussia, Germany, aged 64.

SEHRING, WILHELM, writer of historical works for schools. Died April 24, in Karlsruhe, Baden, Germany, aged 84.

SEUFF, BARTHOLF W., editor musical journal, teacher. Died June 25, in Badenweiler, Baden, Germany, aged 82.

STÄHELIN, Dr. RUDOLF, professor in university at Basel. Died March 13, in Basel, Switzerland.

STEINMEYER, Dr. FRANZ LUDWIG, professor in University of Berlin. Died February 5, in Berlin, Germany, aged 89.

SYDOW, Dr., privy councilor, assistant secretary of state in Prussia. Died June 16, in Berlin, Germany, aged 81.

TÖNSFELD, GOTTFRIED, principal of boys' high school in Altona. Died March 5, in Altona, Prussia, Germany, aged 56.

TROMNAU, ADOLPH, teacher in girls' high school at Bromberg; author of numerous works on geography, history, colonization, etc. Died March 24 in Bromberg, Prussia, Germany, aged 44.

VALENTIN, Dr. VEIT, university professor, author of philological works for schools. Died December 26, in Frankfort on the Main, Germany, aged 58.

VATKE, Dr. EMIL Fr. Th., author of educational works. Died April 9, at Gross-Lichterfelde near Berlin, Germany, aged 60.

VORBERG, Rev. MAX, superintendent of schools in Berlin. Died December 18, in Berlin, Germany, aged 62.

VORWERK, Miss ANNA, principal of girls' school and normal school for domestic science. Died November 18, in Wolfenbüttel, Hanover, Germany.

WAAGEN, Dr. WILLIAM, professor in university at Vienna. Died March 24, in Vienna, Austria, aged 59.

WARTENBURG, Count YORK VON, noted author of historical text-books. Died November 27 in Hwai-lai, China, aged 55.

WEHNER, FRIEDRICH AUGUST, teacher in normal school, advocate of gymnastic exercises. Died December 8, in Bunzlau, Prussia, Germany, aged 57.

WEIZEL, Rev. JOHANN JACOB, dean, editor of a church periodical, and author of several dramas. Died January 22, in Rothenburg Bavaria, Germany.

WIESE, Dr. LUDWIG ADOLPH, privy councilor, and from 1852 till 1875 chief of division of secondary schools in the department of education of Prussia. Died February 26, in Potsdam, Prussia, Germany, aged 84.

WIRTH, MAX, author of political economic and historic works. Died July 18, in Vienna, Austria, aged 78.

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ARNDT, Rev. D., died July 2 in Berlin, aged 51. Editor of Mission Magazine and Science of Religion.

BARAK, Maj. MAX, died September 1 in Stuttgart, aged 69. Noted dialect writer in Allemanian dialect, and author of juvenile books.

BELTRAMI, EUGENIO, in Rome, Italy, February 18, 1900; he was senator of the Kingdom; president of the Royal Academy of the Lynxes ("Lincei"); member of higher council of public instruction; professor in the University of Rome.

BENDER, WILHELM, died April 1 in Bonn, aged 56. Professor of theology of great note and a copious writer.

BILTZ, KARL, died December 16 in Berlin, aged 71. Dramatic critic of note.

BLOMQUIST, ELIZABETH, died June 9 in Helsingfors, Finland; born February 17, 1827; the daughter of Prof. Alex. Blomquist, of the University of Helsingfors, she was early associated with him in the establishment of a high grade school for girls; in 1868 she opened private classes for the instruction of teachers; for many years at the head of a woman's school in Helsingfors; she took high rank as an educator.

BLUMNER, MARTIN, died November 16 in Berlin, aged 74. Musical composer and director.

BÖCKER, Dr. EWALD, died August 26 in Kösen, aged 57. Teacher in Frankfort-on-the-Main; author of books for children.

BOGOLEPOFF, M., in St. Petersburg, Russia, March 15. The former minister of public instruction; was shot on February 27 while holding a reception at the ministry, and died from the effects of his wounds. The unrest among the university students and the consequent measures to subdue the trouble were said to be the cause.

BÖHN, JOHANN, died September 1 in Altdorf, aged 64. Teacher in normal school at Altdorf; writer on educational subjects.

BOSSE, Dr. JULIUS ROBERT, died July 31 in Berlin. Prussian minister of public instruction; author of law which regulated teachers' salaries and pensions.

BRAUNE, AUG., died at Althaldesleben February 3, aged 50. School superintendent in Friedland.

BRECHER, Dr. AD., died November 21 in Berlin, aged 65. Professor in gymnasium; geographer of note.

BUCHHOLTZ, Dr. ANTON, died October 13 in Riga, Russia, aged 53. Distinguished author of books on history of the Hebrews.

CHRYSANDER, Dr. FRIEDRICH, died September 3 in Hamburg, aged 75. Author of musical works much used in German schools.

DANCKELMANN, BERNHARD, died January 19, at Eberswalde, aged 70. Chief of division of forestry in royal ministry of the interior; editor of reviews on scientific forestry.

DIEFFENBACH, Dr. GEORG CHRISTIAN, died May 10 in Schlitz. Religious poet; editor of juvenile monthly.

DORN, A. J. PAUL, died November 28, in Berlin, aged 68. Musical director; professor of music in royal conservatory; distinguished composer.

DÜNTZER, J. H. JOSEPH, died December 16, in Cologne, aged 88. Professor in university at Bonn; prolific writer on literary subjects, chiefly on Göethe and poets of his period.

EGENOLFF, Dr. PETER, died September 6, in Heidelberg, aged 50. Professor in university; authority in orthoepy and grammar.

EULER, Dr. KARL, died September 15, in Berlin, aged 73. Director of royal gymnastic school; authority on physical education.

EYSSENHARDT, Dr. FRANZ, died December 5, in Hamburg, aged 63. Librarian of city library in Hamburg; author of numerous works on classical literature.

FICK, ADOLF, died August 21, in Blankenbergh, aged 72. Professor of physiology in university of Würzburg. His works on physiological subjects are highly prized.

FRIEDRICH, F., died July 28, in St. Moritz, aged 52. Aided the teachers in Berlin in their self-imposed task of self-improvement.

FRITSCHE, Dr. HERMANN, died May 20, in Stettin, aged 73. Principal of high school.

FRÖHLICH, Dr. G., died June 9, in St. Johann, aged 60. One of the most noted writers on education; school inspector in Thuringia.

GERBER, Dr. GUSTAV, died October 21, in Berlin, aged 81. Principal of high school at Bromberg; author of books on art and philosophy.

GRIMM, Dr. HERMANN, died June 16, aged 73, in Cassel. Professor of art and literature in Berlin; most distinguished art authority in Germany.

GROB, JOHANN KASPAR, died October 21, in Zürich, aged 60. Editor of statistical yearbooks of Swiss education.

HALLSTRÖM, IVAR CHRISTIAN, born in Stockholm in 1826, died April, 1901. In 1861 became president of the school of music founded by Lindblad. He wrote several operas.

HARTMANN, Dr. G. F. H., died December 26, in Lintorf, aged 75. Councilor of hygiene; prolific writer.

HAYM, RUDOLF, died August 27, in St. Anton, aged 80. Professor in Halle. His writings on historical and philosophic subjects are among the foremost.

HEGEL, KARL VON, died December 6, in Erlangen, aged 88. Professor of history in Erlangen University; prolific writer on local history. Son of the famous philosopher.

HEINZE, WILHELM, died January 14, at Alfeld, aged 51. Professor in normal school at Alfeld, and author of many text-books and guides.

HELBERG, DIETRICH, died at Lauenburg, February 8. Principal of school and well known for his progressive work.

HELMCKE, GUSTAV, died July 28, in Magdeburg. Author of a book on the treatment of morally weak or depraved children which has done much to direct the attention to these classes.

HELMLING, PETER, died May 1 in Reval, aged 84. Professor at Dorpat. Author of German works on mathematics.

HERMITE, CHARLES, died January 14 at Paris, aged 79. Though a Frenchman he was a member of the Prussian Royal Academy of Sciences. Author of mathematical works.

HÜBNER, Dr. EMIL, died February 22 at Berlin, aged 65. Professor of philology and archæology in Berlin. Writer of numerous works on the subjects.

IVANOV, GAVRIL, died in February or March, in Moscow, Russia, in his 73d year. He was a professor of literature in Moscow.

KAIBEL, Dr. GEORG, died October 12 in Göttingen, aged 52. Professor in University of Göttingen. Noted archæologist.

KLEESE, AUGUST, died October 8 in Schalke, aged 82. Normal school teacher. Author of "Orations."

KLOOS, Dr. JOHANN, died March 24 in Brunswick, aged 59. Professor at polytechnic school and noted mineralogist.

KOCK, Dr. THEODOR, died June 15 in Weimar, aged 83. High school principal and noted classical scholar.

KÖNIG, ARTHUR, died October 26 in Berlin, aged 45. Professor in Berlin University, noted author of works on physics and physiology.

KOSLOV, A. A., in St. Petersburg in March, aged 70 years. Professor of philosophy at the University of Kieff; he was noted as a literary mediator between Russian and German thinkers; author of a series of works upon such German philosophers as Kant, Hartmann, and Dühring. He translated Hartmann's Philosophie des Unbewussten into Russian.

KRAUS, FRANZ XAVER, died December 29 in San Remo, aged 61. Professor of church history in University of Strasburg; prolific writer on religious and historical subjects.

KREHL, CHRISTOPH L. E., died May 15 in Leipzig, aged 76. Librarian of university; writer of books on archæology.

KRENKEL, Dr. PETER M., died at Dresden, February 10, aged 62. Professor of theology; noted writer on theological subjects.

KREUSLER, Dr. WOLRAD, died January 9 at Brandenburg, aged 84. Privy councilor; prominent promoter of sanitation and hygiene.

KÜHNERT, GUSTAV ALEX. O., died May 11 in Chemnitz, aged 74. School principal in Chemnitz, Saxony; editor of an educational journal.

LAGE, Miss BERTHA VON DER, died December 24 in Berlin, aged 57. Teacher and frequent contributor for the educational press.

LANGEN, Dr. JOSEPH, died July 13 in Bonn, aged 64. Professor in university and writer of noted works on higher criticism.

LIE, SOPHUS, died February 18, 1899, in Christiania, Norway; the great mathematician and exponent of mathematical theories; worked at Leipzig (Germany) and Christiania universities after he became world famous. In earlier life he was privatdocent, and later professor at the University of Christiania.

LIND, Dr. KARL, died August 30, in Vienna, aged 66. Councilor in ministry of education; director of division of art.

LION, Dr. JULIUS KARL, died May 30, in Leipzig, aged 72. One of the most noted promoters of physical training; writer of numerous books.

LOREY, Dr. KARL J. T., died December 27, in Tübingen, aged 56. Professor of forestry and agriculture; editor of forestry magazine.

MIGUEL, Dr. JOHANN VON, died September 8, in Frankfurt, aged 72. Minister of finance in Prussia; parliamentarian of great influence; distinguished promoter of education.

MÜLLER, Dr. M. J. C., died January 17, at Heidelberg, aged 56. Professor of botany at the forestry academy in Münden.

NATTERER, Dr. U., died February 16, at Vienna, aged only 31. University professor at Marcy; author of Chemistry of the Ocean.

NORDENSKJÖLD, Baron ADOLPH ERIC VON, died August —; born in 1832 at Helsingfors, Finland; went to Spitzbergen, as geologist, in 1858, 1861, 1864, and 1868; in 1875 discovered the Northeast Passage; prepared maps, wrote academic papers, and records of his voyages; in 1881 he wrote The Vega's Voyage Round Asia and Europe.

PAPPENHEIM, Dr. EUGEN, died December 25, in Berlin, aged 70. Professor of philosophy; ardent in promoting kindergarten practice.

PETTENKOFER, Dr. MAX, died at Munich, February 10, aged 83. Professor of medicine in Munich; president of Imperial Board of Hygiene; president of the Royal Bavarian Academy of Sciences; author of The Cholera.

PFEIFFER, Dr. HERMANN, died February 18, at Darmstadt, aged 70. Member of Imperial Board of Hygiene; author of many medical books and editor of medical periodicals.

PRINZHORN, W., died February 13, at Burgdorf, Hanover, aged 77. For many years chairman of provincial teachers' association.

RABOLSKY, Dr. HERMANN, died December 13 in Berlin, aged 79. Head teacher of gymnasium in Neuhaldsleben, biographer of Prussian kings.

REINHOLD, Dr. KARL TH., died November 14 in Berlin, aged 52. Professor of political economy in university. Prolific writer on economic subjects.

RHEINBERGER, JOSEPH GABRIEL, died November 25 in Munich, aged 62. Musical director and royal inspector of music schools; successful composer.

RIANO, JUAN F., died February 26, 1901. Eminent Spanish authority on art and letters. A reviewer of Spanish literature in the London Athenæum for more than twenty years.

RICHTER, Dr. RICHARD, died May 29 in Leipzig, aged 62. Professor of pedagogy in Leipzig.

RING, Dr. MAX, died March 28 in Berlin, aged 84. Noted novelist and historian.

RÖDIGER, HERMANN, died November 19 in Berka, aged 58. School principal; composer of cantatas for children.

SACHSE, Dr. FR. EMIL, died December 18 in Leipzig, aged 64. Teacher, and editor of Practical Teacher.

SANDERS, NICHOLAS, died in June, 1900. Born in 1829. He became one of the veterans of Swedish literature. He was given a prize by the Swedish Academy for a Cycle of Songs. An expert in the literature of modern Greece; an authority on Scandinavian archæology; for several years keeper of the Swedish Museum.

SAUER, Dr. WILHELM, died April 9 in Düsseldorf, aged 58. Historian.

SCARTAZZINI, Dr. J. A., the great Dantean scholar, died in February. Born December 30, 1837, at Bondo, Switzerland. He studied at the universities of Basel and Berne. From about 1872 on he prepared his great edition of the Divina Commedia.

SCHÄUBLIN, Dr. J. J., died January 19 at Basel, aged 78. Director of orphan asylum in Basel. Author of numerous text-books for elementary schools.

SCHAUENBURG, Dr. EDUARD, died September 23 in Crefeld, aged 80. Principal of classical high school; member of the royal commission for the reform of secondary education in Prussia.

SCHEEL, Dr. HANS VON, died September 27 in Berlin, aged 62. Professor in University of Berne; later member of statistical bureau in Berlin.

SCHLÖMILCH, OSKAR, died at Dresden February 7, aged 77. Privy councilor and professor of mathematics in Jena. Author of highly reputed works on mathematics.

SCHMIDT, Dr. JOHANN, died July 4 in Berlin, aged 58. Professor of philology in Bonn; a criticist of great note.

SCHNEIDER, IGNAZ, died May 14 in Bilin, Austria, aged 74. School principal and writer of text-books.

SCHULTZ, A. M. F., died July 27, in Charlottenburg, aged 72. Principal of high school for girls in Berlin; author of text-books much used in Germany.

SCHULZE-STRELITZ, Prof. LUDWIG, died March 20, in Stargard. Musician and teacher of vocal music of great note.

SCHWALBE, Dr. BERNHARD, died March 31, in Berlin, aged 60. School superintendent at Quedlinburg; author of several popular text-books on scientific subjects.

SEEMANN, Dr. OTTO, died September 19, in Hanover, aged 76. Distinguished writer on ancient mythology.

SEPP, J. N., died August 5, in Rodenheim, aged 85. University professor in Munich; member of national Parliament; copious writer on theological subjects.

SETTEGAST, HENRY, died December 4, in Jena, aged 53. Professor of agriculture in Jena; successful author of books on agricultural and botanical subjects.

SEYFFARDT, B. F., died at Crefeld, January 25, aged 73. Member of German Parliament; published many essays on educational subjects from political standpoint.

SPIESS, Dr. A., died December 23, in Brunswick. Minister of public instruction of the duchy of Brunswick.

SPYRI, Mrs. JOHANNA, died July 7, in Zürich, aged 72. Much-read author of juvenile books.

STARCZEWSKI, ADELBERT, in St. Petersburg, Russia, in December. Born in 1818, he studied at the universities in Kieff and St. Petersburg; wrote several historical works, among others a catalogue of Russian materials for the history of Russia. In 1856 he founded the Russian journal, The Son of the Father; in 1888 he wrote Recollections of an Old Man of Letters.

SUSEMIHL, Fr. FRANZ KARL ERNST, died in Florence, aged 65. Historian of philosophy.

SUTERMEISTER, OTTO, died August 17, in Aarau, aged 69. Principal of normal school at Aarau and professor of German literature at Berne, Switzerland. His writings are very numerous.

THUM, Dr. RUDOLPH, died December 5 in Reichenbach, aged 88. Principal of high school in Reichenbach; author of popular text-books for the study of French and English.

TOMASCHEK, Dr. WILHELM, died September 9 in Vienna, aged 60. Professor of geography in university and writer of books on historical geography.

UHLHORN, GERHARD, died December 15 in Hanover, aged 75. Abbot and court preacher; member of consistory; prolific writer on politico-religious subjects.

URBAN, HEINRICH, died November 24 in Berlin, aged 64. Professor in music conservatory; composer of note.

WEBER, FREIDRICH ALBERT, died November 30 in Berlin, aged 76. Professor of philology in university; authority in Sanscrit and other Indian languages.

WEBER, Mrs. MATHILDE, died June 22 in Tübingen, aged 72. Founder of the first domestic science school in Germany.

WEISBACH, Dr. ALBIN, died March 14, at Freiberg, aged 68. Professor of physics and mineralogy in mining academy at Freiberg.

WEINHOLD, KARL, died August 15, in Nauheim, aged 78. Professor of philology and literature in several German universities. Writer of numerous books.

WIGGERS, Dr. J. OTTO AUGUST, died March 6, at Rostock, aged 90. Professor of philology at Rostock. Author of many books.

WOLLNY, EWALD, died January 9, at Munich, aged 31. Professor at technological university at Munich. Author of numerous contributions to physical science.

ZAPP, Dr. AUGUST, died May 13, in Meran, Austria, aged 86. Historian.

ZEHFUSS, JOH. GEORG, died May 5, in Darmstadt, aged 69. Professor in Heidelberg. Noted writer.

ZOLLING, Dr. THEOPHIL, died March 22, in Berlin, aged 52. Editor of Gegenwart, a literary journal of influence.

ZORN, BERNHARD, died June 26 in Kyritz. Teacher in normal school and best known as composer and musical director.

CHAPTER VIII.

EDUCATION IN CANADA.

Dominion of Canada, comprising seven Provinces, with an extent of 3,653,946 square miles and a population estimated at 5,371,051 in 1901.

PREVIOUS ARTICLES ON EDUCATION IN CANADA IN THE COMMISSIONER'S REPORTS.

"Education in Ontario," Report 1892-93, Vol. 1, Chapter VI; "Notes on education at the Columbian Exposition," *ibid.*, Chapter X, pages 1213-1215; "Manitoba school question." Report 1894-95, Vol. 1, Chapter VII.

"Current and historical survey of the systems of education in the several Provinces," Report 1897-98, Vol. 1, Chapter IV.

"Education in Canada: Outline of the public systems of education with current statistics; Industrial and technical education; Historic foundations of the Ontario system," Report 1898-99, Vol. 2, Chapter XXIX.

TOPICAL OUTLINE.

Education in the Canadian Dominion: Salient characteristics of the systems of public instruction; Summarized statistics for 1900-1901; Educational systems of the separate Provinces; Conspectuses of the individual systems; Statistics, current and retrospective. Citations from current reports: Ontario, growth of high schools (p. 432), industrial and technical education (pp. 435-6), schools for special classes (pp. 436-7); Nova Scotia, development of the normal school by equipments for science teaching and manual training (pp. 449-50); New Brunswick, scarcity of trained teachers (pp. 452-3). Table of higher educational institutions.

[The following statements have been compiled chiefly from the reports of the chief officers of education, the revised school laws, and the Canadian Yearbook for 1901. Other sources of information consulted were: The School System of Ontario, Hon. George W. Ross, former Minister of Education for the Province of Ontario, International Education Series, Vol. XXXVIII; Educational System of the Province of Ontario, John Millar, B. A., Deputy Minister of Education; Proceedings of the Fourth Convention of the Dominion Educational Association, Ottawa, 1901; Documentary History of Education in Ontario, Dr. J. G. Hodgins, Librarian and Historiographer of the Education Department; Special Reports on Educational Subjects, Board of Education, England, Vol. IV; The Manitoba School Question, Ewart; The History of the Manitoba School System, and the Issues of the Recent Controversy, Mr. R. L. Morant; Special Reports, Board of Education, England, Vol. I.]

By the British North American act of 1867 the right to legislate on matters respecting education was left to the governments of the four Provinces (Ontario, Quebec, Nova Scotia, and New Brunswick), which were then united under the general name of Dominion of Canada. The same right has been assured also to the Provinces that have since entered the confederation (Prince Edward Island, Manitoba, British Columbia, Northwest Territories).

Prior, however, to the federation of the Provinces, education had become a matter of general interest. Ontario, "the core of the confederation," had at the time of its adoption a well-organized system of public schools. Quebec had brought its parochial schools under public supervision and the smaller maritime Provinces had proved their interest in the cause both by legislation and by grants for schools from public funds.

From the beginning two forces were at work directing the educational activities of the people. Both the English and French settlers had brought with them traditional respect for parochial schools and for ecclesiastical control of education; but the English settlers were also deeply imbued with those ideas that were making for the supremacy of civil authorities in all secular affairs, and the conditions of the new country favored the growth of this tendency.

The first system of public education organized in the Provinces, that of Ontario, was distinctively a system under public or government control, and as such has

been the model followed more or less closely by all the other Provinces excepting Quebec.

The Ontario school law of 1843, the basis of the system, embodied features drawn from the school systems of New England and New York, but it differed from these especially by the larger provision for centralized control.

The minister of public instruction in Ontario is more than the executive head of the system, as will be seen by the detailed statement of his powers (p. 428). As a member of the legislature he initiates and largely directs school legislation, while his judicial functions and powers of appointment give great weight to the policies he advocates. No other Province has reposed equal authority in the chief officer of education, but all have sought to secure uniformity of school provision and educational standards by means of centralized government control.

In Quebec the schools are sectarian: that is, they are distinctively either Roman Catholic or Protestant schools. The former are under ecclesiastical control, which for this purpose is organized in accordance with the provisions of the school laws; the Protestant schools are in like manner under Protestant control. In Ontario and the Northwest Territories provision is made for separate schools for Protestants and for Catholics where desired, and the supporters of these separate schools are exempt from the payment of local taxes for the support of the public schools. The separate schools are under government inspection and in general are under the same regulations as the public schools.

The public elementary schools are free schools, excepting in Quebec, where fees are charged which may not exceed 50 cents a month nor be less than 5 cents a month. In the model schools and academies of this Province, which correspond to the grammar and high schools of our own States, the fees may be higher. In the high schools of Ontario fees are charged, but may be and often are remitted at the discretion of the school authorities. With these exceptions the public schools of the several Provinces are free, their support being derived from provincial grants and local (municipal) appropriations and school taxes.

The mode of apportioning the legislative grant among the school districts differs in the different Provinces, but in all there is apparent the purpose to make the provincial appropriation a means of stimulating rather than of lessening local effort in behalf of the schools.

In Ontario the legislative grant is apportioned to the schools on the basis of average attendance in each, respectively. In Quebec the legislative grant is apportioned to the several school municipalities (areas for local school administration) in proportion to their respective populations upon proof that they have complied with the law as to the maintenance of schools and the qualifications and remuneration of teachers. Special arrangements are made in the case of very poor municipalities. In Nova Scotia the legislative grant for public schools is a fixed sum ($190,000 annually), divided between the legally qualified teachers in conjoined proportion to the number of "authorized days taught" and to the class of license held by the teacher.

In Manitoba each municipality[a] is required to appropriate a specified amount ($20 for each teacher employed for each month the school is kept open) in addition to a variable amount, depending upon the current expenditure for the schools.

The need of some regulation proportioning the provincial grant to the amount raised locally is recognized in New Brunswick, where many districts seem content to

[a] For purposes of civil administration a municipal organization is adopted in Ontario, Manitoba, and British Columbia. This organization comprises: "(*a*) The townships, being rural districts of an area of 8 or 10 square miles; (*b*) villages with a population of over 750; (*c*) towns with a population of over 2,000. Such of these as are comprised within a large district, called a county, constitute (*d*) the county municipality. (*e*) Cities are established from the growth of towns in population exceeds 15,000." (Canada Statistical Yearbook.)

leave their schools to the meager provision from the legislative grant, although fully able to bear a part in their financial support.

In all the Provinces the public school systems include secondary schools corresponding to the high schools of our own country. These high schools have generally an extended curriculum, and prepare students for matriculation in the universities.

The history of higher education in the older Canadian Provinces antedates that of public provision for elementary schools. As early as 1798 an appropriation of 500,000 acres of land was made for the establishment of a university and grammar or preparatory schools in Toronto, but the charter for the university was not secured until 1827. Laval University was founded by the Seminary of Quebec (ecclesiastical organization) in 1852 and secured a royal charter the same year.

The influence of these and of kindred institutions may be traced throughout the subsequent history of education in the Dominion. They have aided materially in maintaining a high standard of secondary education. The high schools of Ontario prepare students for the matriculation examination at the university, and the precedent thus set has been followed in the other Provinces.

Everywhere the disposition is manifest to keep an open road from the public schools to the universities, and to do away entirely with class distinctions in education.

The following tables present in summaries the principal statistics of the public schools in the several Provinces. The totals are brought into comparison with the similar particulars for the New England States, whose combined population is but little above that of the Canadian Dominion. For convenience of reference the educational statistics are preceded by a table of populations in which the population is classified as Roman Catholic and Protestant, a distinction of much importance on account of its bearing upon the provision for separate schools as already explained.

This summarized view is followed by detailed particulars of the educational work in each Province, including a brief conspectus of the respective systems of public education. The constitution and scope of the central authorities in Ontario and Quebec have been presented with much fullness, as showing the most salient characteristics of these two systems and those in which they differ most from our own State systems:

Population of Dominion of Canada, 1901.

Provinces.	Roman Catholics.	Other denominations.	Grand total.	Ages for school attendance.	Compulsory school ages.	Age and number of registered pupils.			School population.
						Under 5 years.	5 to 21 years.	Above 21 years.	
Ontario	390,855	1,792,582	2,182,947	5 to 21	[a]8 to 14	1,111	461,258	125	534,105
Quebec	1,429,186	219,712	1,648,898	5 to 16	.....	.....	[b]308,870	[c]6,011	379,005
Nova Scotia	129,578	329,996	459,574	5 to 15	7 to 12	2,135	[d]88,430	[e]7,845	.....
New Brunswick	125,688	205,422	331,120	5 to 15	.....	187	[d]58,485	[e]3,748	.....
Manitoba	35,622	219,325	254,947	5 to 21	.....	90	50,265	105	63,881
British Columbia	34,227	144,430	178,657	5 to 16	7 to 12	.....	.....	.....	.....
Prince Edward Island	45,796	57,463	103,259	.....	8 to 13	.....	.....	.....	.....
Northwest Territories	30,059	128,851	158,940	5 to 16	7 to 12	.....	.....	.....	.....
Unorganized Territories	8,446	44,263	52,709	.....	(f)	.....	.....	.....	.....
Canada	2,228,997	3,142,054	5,371,051	.....	.....	.....	.....	.....	.....
New England States	.....	.....	5,082,488	.....	.....	.....	.....	.....	.....

[a] Full-term law of 1891.
[b] 5 to 16 years.
[c] Above 16 years.
[d] 5 to 15 years.
[e] Above 15 years.
[f] 16 weeks in each year—8 consecutive.

EDUCATIONAL STATISTICS.

TABLE I.—*Enrollment in public schools, elementary and high.*

Provinces.	Date of school statistics.	Public schools (chiefly elementary). Enrollment. Male.	Female.	Total.	Average attendance. Total.	Ratio to enrollment.	Ratio of enrollment to population.	Enrollment in high schools.
Ontario	1900	238,605	223,889	462,494	263,181	57	21.18	[a]21,723
Quebec	1900-01	153,801	161,080	314,881	232,253	73.75	19.09	[b]7,871
Nova Scotia	1900-01	49,768	48,642	98,410	53,643	54.5	21.41	[c]1,635
New Brunswick	1900-01	30,870	29,550	60,420	37,717	62.42	18.24	[c]1,528
Manitoba	1901	.....	.....	51,888	27,550	53.09	20.35	[c]1,044
British Columbia	1901	12,069	11,546	23,615	15,335	63.93	13.21	[c]584
Prince Edward Island	1901	11,319	9,460	20,779	12,330	59.34	20.12	([d])
Northwest Territories	1901	12,230	11,457	23,687	11,889	50.19	14.89	([d])
Total	.....	508,662	495,624	1,056,174	653,898	61.91	19.85	34,396
New England States	1900-01	.....	.....	856,849	727,628	76.04	16.85	[e]66,241

[a] Not included in public school enrollment columns 3, 4, 5.
[b] In the upper classes of model schools and academies included in columns 3, 4, and 5.
[c] Included also in columns 3, 4, 5.
[d] Not reported separately from total enrollment.
[e] Included also in column 5; there were also in private secondary schools 14,835 students.

TABLE II.—*Teachers and salaries.*

Provinces.	Number of teachers. Male.	Female.	Total.	Percentage of male teachers.	Average annual or monthly salaries of teachers. Male.	Female.
British Columbia	.....	.....	528	.....	[a]$52.00-$59.00	[a]$26.00-$36.00
Manitoba	618	1,051	1,669	38.06	449.37	
New Brunswick	353	1,488	1,841	19.17	321.41-520.10	179.34-183.81
Northwest Territories	.....	.....	679	.....	.....	.....
Nova Scotia	540	1,952	2,492	21.7	192.68	165.41
Ontario	2,630	6,810	9,440	28	404.00	298.00
Prince Edward Island	298	291	589	50.6	401.35	309.85
Quebec	376	6,267	6,643	5.6	281.00	113.00
Total	4,815	17,859	23,881	20.16	.....	.....
New England States	4,008	13,008	18,008	22.59	[a]79.69	[a]38.28

[a] Monthly salaries.

TABLE III.—*Expenditures for public schools.*

Provinces.	Year.	Teachers' salaries.	Sites, buildings, and furnishings.	Fuel.	Care of schoolhouses.	Office salaries.	Other purposes.	Total.	Per capita of enrollment.	Per capita of population.
British Columbia	1900-01	$213,088	$98,345	$20,428	$12,200	$248,625		$532,692	22.55	2.97
Manitoba	1900-01	582,325	148,987	34,285	$101,762	.....		883,074	16.05	3.26
New Brunswick	1900-01	.....	.....	.....	.....	.....	.....	600,340	9	1.81
Northwest Territories	1900-01	234,976	90,724	19,480	11,375	99,300		455,855	19.24	2.86
Nova Scotia	1900-01	.....	.....	.....	.....	.....	.....	844,762	15.75	1.88
Ontario	1900	2,985,278	438,374	1,091,437	.....	.....	71,994	4,587,083	9.92	2.10
Prince Edward Island	1901	.....	.....	.....	.....	.....	.....	164,935	7.93	1.59
Quebec	1900-01	.....	.....	.....	.....	.....	.....	3,251,714	10.32	1.93
Total	.....	.....	.....	.....	.....	.....	.....	11,270,455	10.67	2.12
New England States	1900-01	14,195,903	4,377,948	.....	.....	.....	4,513,359	23,087,208	24.12	4.06

TABLE IV.—*Income, sources and amounts.*

Provinces.	Year.	Income.			
		Legislative grant.	Municipal appropriations.[a]	Other local sources.	Total.
Ontario	1900-01	$360,901	$3,847,646	$1,292,441	$5,509,988
Quebec	1900-01	241,947	1,688,743	[b] 1,311,061	3,241,751
Nova Scotia	1900-01	254,778	119,876	[c] 470,108	844,762
New Brunswick	1900-01	163,952	[d] 437,116		601,068
Manitoba	1900-91	113,452	[e] 1,197,353		1,310,805
British Columbia	1900-01	350,532	182,160	1,320	534,012
Prince Edward Island	1900-01	128,288	36,647		164,935
Northwest Territories	1900-01	150,627	185,823	148,087	499,567
Total		1,773,477	6,677,607	473,763 3,787,011	12,696,888
New England States	1900-01	[f] 1,245,164	[g] 20,522,241	[h] 411,241	22,178,646

[a] Municipalities correspond somewhat to counties and townships in the United States. See footnote, p. 424.
[b] From fees for independent and subsidized schools.
[c] School section assessments.
[d] Includes county fund, $35,794.56; balance district assessments.
[e] Municipal grant and school taxes.
[f] State taxes.
[g] Local taxes.
[h] Other sources.

TABLE V.—*Percentage of school income from each contributing source.*

Provinces.	Year.	Legislative grant.	Municipal appropriations.	Other local sources.
		Per cent.	*Per cent.*	*Per cent.*
Ontario	1900-1901	6.71	69.84	23.45
Quebec	1900-1901	7.43	52.12	40.43
Nova Scotia	1900-1901	30.15	14.19	55.64
New Brunswick	1900-1901	27.27	72.73	
Manitoba	1900-1901	8.65	91.35	
British Columbia	1900-1901	65.64	34.10	.24
Prince Edward Island	1900-1901	77.78	22.22	
Northwest Territories	1900-1901	30.76	37.95	30.24
New England States	1900-1901	[a] 5.60	[b] 92.40	2.00

[a] State tax. [b] Local taxes.

Educational systems of the several Canadian Provinces.

ONTARIO.

Ontario maintains a comprehensive system of education extending from the kindergartens (introduced into the system in 1882, now numbering 120, with an enrollment of 11,234 pupils) to the provincial university, which derives a portion of its income ($118,000 in 1900) from public lands and under a recent law (university act of 1900) must report annually to the lieutenant-governor. The characteristic features of the system are the centralized control, securing uniformity of standards and school equipment throughout the Provinces; the very equitable regulations in regard to separate schools for Roman Catholic and for Protestant pupils, where desired; the provision for assuring the professional training of all teachers, and the close correlation of the several grades of schools by means of well-considered courses of study, uniform text-books, and examinations conducted by the central authority.

Central authority.—The central authority, or department of education, consists of the members of the executive government, its chief being the minister of education.

The minister [to quote Mr. Millar,[a] deputy minister of education] directs all the educational forces of the country; first, from his place as a member of the legislative assembly, and, secondly, through the officers of his department. From the discussions of educational questions in the provincial parliament his position as a member gives him the best facilities for recognizing the working of the school law and ascertaining the trend of public opinion. As the head of his department, his constant official intercourse with trustees, inspectors, and teachers gives him the greatest opportunity for prescribing from time to time whatever amendments to the regulations may be considered wise in the interests of public high schools. From the wide sweep of the legislation which he is expected to direct, and from his position as a member of the government responsible to the people's representatives, he is able to advance such legislation as will guard the unity of the system and preserve its symmetry.

Extensive powers are given to the education department, but every regulation or order in council made under the statute giving it an existence or under the public, separate, or high schools act, must be laid before the legislative assembly. It has power, subject to the provisions of any statute in that behalf, to make regulations:

(1) For the classification, organization, government, and examination of all schools and institutions (specified in the law) and for the equipment of schoolhouses and the arrangement of school premises.

(2) For the authorization of text-books for the use of pupils attending such schools or institutes, and for the selection of books of reference for the use of teachers and pupils and school libraries.

(3) For determining the qualifications and duties of inspectors, examiners, and teachers of such schools and institutes, and for the appointment from time to time of such examiners as may be requisite for that purpose.

(4) For the payment of the pensions of superannuated inspectors and teachers, and the proper distribution of all moneys set apart by the legislative assembly for school purposes.

(5) For extending on the petition of a board of school trustees, and on such evidence as to efficiency as may be deemed necessary, any third-class certificate (teacher's) issued under the authority of the public-school act.

(6) For the study of agriculture and for scientific instruction as to the nature of alcoholic stimulants and narcotics with special reference to their effect upon the human system.

The education department has power also:

(1) To appoint inspectors of high schools, separate schools, and county model schools, masters of normal and model schools, and directors of teachers' institutes.

(2) To affiliate with the schools of pedagogy such high schools or collegiate institutes as may be necessary for practical instruction in the art of teaching.

(3) To determine the fees to be paid by candidates at departmental examinations.

(4) To accept in such subjects as may be deemed expedient the examinations of any university in the British dominions in lieu of the departmental examinations.

(5) To prescribe such forms for school registers and departmental reports as may be deemed expedient.

(6) To accept, on passing the annual departmental examination, the professional or training certificate of any normal school or other training institutions in the British dominions.

The minister of education is the active agent through whom the above powers are exercised. He "makes an annual report to the lieutenant-governor upon the schools and other institutions under the control of his department, with such statements and suggestions for promoting education generally as he may deem useful and expedient. He has power to decide upon all disputes and complaints laid before him the settlement of which is not otherwise provided by law, and upon all appeals made to him from decisions of any inspector or other school officer."

Local authorities.—The municipal system of Ontario is admirably adapted to the maintenance of local self-government. The Province is divided into counties, which are subdivided into minor municipalities. These consist of townships, incorporated villages, towns, and cities. The municipal councils have certain powers and responsibilities in respect to education. Through their municipal councils the counties must make grants of money for high schools, and both coun-

[a] Millar's Educational System of the Province of Ontario, pp. 10, 11.

ties and townships grants of money for public or elementary schools. Every township is subdivided into school sections, corresponding to a school district in our States, each of which must be provided with a public school. Every incorporated village, town, and city forms a school district. In each of these districts the rate payers (that is, the persons who pay a property tax) elect a board of school trustees, men and women being equally eligible to the positions. These trustees appoint the teachers, who must have a government diploma, and determine the amounts to be expended for buildings, equipments, and salaries.

Schools.—Subject to the provisions of any statute relating thereto and the regulations of the department, the following schools may be established by the local boards of school trustees: (1) Kindergartens, (2) public schools, (3) night schools, (4) high schools and collegiate institutions, (5) art schools, (6) county model schools, (7) normal schools, (8) schools of pedagogy, (9) teachers' institutes, (10) mechanics' institutes, and (11) industrial schools.

Sources of income.—The schools are supported by provincial grant and local taxes. The provincial grant for education comprises (1) grants to elementary schools, (2) grants to secondary schools, (3) grants for the training of teachers, and (4) grants for technical education.

The legislative grant for elementary schools is apportioned by the minister of education "among the several counties, townships, cities, towns, and incorporated villages according to the population in each as compared with the whole population of the Province as shown by the last annual returns received from the municipal clerks (provided that the amount payable in every rural school in the territorial districts shall be at least $100)."

The amount so apportioned is distributed among the school sections of each township "according to the average attendance of pupils at each public school as compared with the whole average number of pupils attending the public schools of the township." (School law 1901, section 7.)

The municipal council of every township is authorized to levy and collect by assessment upon the taxable property of the public-school supporters of the whole township, in the manner provided by the school law and by the municipal and assessment laws, the sum of $150 at least for every public school which has been kept open the whole year exclusive of vacations. Where the school has been kept open for six months or over, a proportionate amount of the said sum of $150 at least is levied and collected by assessment upon the taxable property of the whole township. An additional sum of $100 at least is levied and collected in a similar manner for every assistant teacher engaged for the whole year, and a proportionate amount if such assistant teacher was engaged for six months or over.

The council of every municipality levies and collects upon the taxable property of the municipality (or of the sections in the case of rural schools) such sums as may be required by the trustees for school purposes.

The council of every municipality may, in addition to any requisition of the public-school trustees, raise by assessment such other sums as it may deem expedient for the establishment and maintenance of a school library, or for aiding new or weak schools or continuation classes within such municipality, or for the support of model schools, or for supplementing teachers' salaries or retiring allowances. (School law 1901, sections 70, 71.)

[The amount appropriated for public and for separate Roman Catholic or Protestant schools is divided on the basis of average attendance in each, respectively.]

The following tables and citations give the salient particulars respecting the operations of this comprehensive system for the period 1879 to 1900:

Public schools, Ontario, 1879–1900.

Year.	Schools open.	School population between 5 and 21 years of age.	Total pupils registered.	Boys.	Girls.	Average attendance.
1879	5,123	494,424	487,012	259,056	228,615	219,442
1880	5,137	480,924	483,045	255,677	227,956	220,088
1881	5,258	484,224	476,268	251,661	227,368	215,284
1882	5,203	483,817	471,512	246,966	224,607	214,176
1883	5,252	478,791	468,389	243,671	224,548	215,591
1884	5,318	471,287	466,917	244,582	220,698	221,851
1885	5,385	593,147	472,458	240,175	222,385	225,907
1886	5,437	601,204	487,496	257,060	223,263	230,044
1887	5,506	611,212	498,212	259,083	230,460	245,152
1888	5,560	615,953	495,823	259,495	234,129	245,749
1889	5,623	616,023	500,815	263,047	236,858	253,948
1890	5,718	617,856	490,565	259,519	237,708	251,507
1891	5,826	615,781	491,741	256,674	237,046	257,642
1892	5,889	595,258	485,670	253,001	235,067	253,730
1893	5,954	592,503	481,068	250,850	232,579	259,426
1894	5,977	593,840	483,203	251,918	230,212	258,334
1895	5,994	600,615	484,551	253,108	231,285	271,549
1896	5,996	591,717	481,948	251,669	231,443	271,354
1897	6,000	590,055	482,777	251,997	230,279	273,544
1898	5,982	591,300	478,194	248,610	231,100	273,451
1899	6,006	596,350	471,023	243,943	227,080	269,002
1900	6,010	580,105	462,494	238,695	223,800	263,181

Year.	Teachers.		Receipts.	Expenditure.	Average cost per pupil.	
	Male.	Female.			On total attendance.	On average attendance.
1879	3,030	3,413	$3,231,595	$2,889,347	$5.91	$12.80
1880	3,153	3,443	3,213,840	2,886,085	5.82	12.91
1881	3,254	3,483	3,254,830	2,882,053	5.75	12.82
1882	3,362	3,520	3,259,238	2,814,271	5.92	13.21
1883	3,032	3,705	3,493,900	3,026,975	6.42	14.13
1884	2,889	4,082	3,570,731	3,103,430	6.69	14.42
1885	2,780	4,220	3,723,138	3,280,802	7.02	14.79
1886	2,744	4,474	3,813,000	3,312,700	7.01	14.67
1886	2,737	4,497	3,903,483	3,457,690	7.09	14.46
1887	2,718	4,876	4,381,357	3,742,104	7.59	15.26
1888	2,824	4,972	4,456,352	3,850,305	7.75	15.70
1889	2,774	5,103	4,851,091	4,198,517	8.44	16.53
1890	2,730	5,450	5,016,212	4,295,078	8.67	17.09
1891	2,735	5,541	4,771,311	4,076,241	8.34	15.82
1892	2,770	5,710	4,811,890	4,053,918	8.40	15.97
1893	2,785	5,802	4,746,252	4,051,490	8.54	15.62
1894	2,795	6,029	4,972,507	4,248,331	8.79	15.83
1895	2,843	6,070	4,868,315	4,197,192	8.67	15.45
1896	2,824	6,104	4,886,112	4,149,307	8.61	15.29
1897	2,784	6,344	4,988,155	4,215,670	8.73	15.41
1898	2,743	6,466	5,219,444	4,392,714	9.19	16.09
1899	2,713	6,629	5,202,718	4,372,050	9.28	16.25
1900	2,630	6,810	5,509,968	4,587,083	9.92	17.43

Kindergartens, 1891–1900.

Year.	Kindergartens.	Teachers.	Pupils.	Average attendance.
1891	66	160	6,575	3,287
1892	85	200	8,056	3,190
1893	85	200	8,767	3,402
1894	90	184	9,340.	3,681
1895	95	201	9,501	3,646
1896	97	202	10,174	4,051
1897	105	223	10,698	4,362
1898	116	240	11,083	4,573
1899	119	248	11,262	4,701
1900	120	250	11,234	4,639

Roman Catholic separate schools, Ontario, 1878–1900.

Year	Schools.	Pupils.	Boys.	Girls.	Average attendance.	Receipts.	Expenditure.	Average cost per pupil.	
								On total attendance.	On average attendance.
1878	176	25,280				$127,549	$120,559	$4.77	
1879	191	24,779				129,092	122,831	4.96	
1880	198	25,311				136,873	128,463	5.08	
1881	195	24,819				137,074	123,724	4.99	
1882	193	26,148				166,739	154,340	5.90	
1883	194	26,177				166,289	153,611	5.86	
1884	207	27,403	13,703	13,760		190,454	176,477	6.42	
1885	218	27,580	13,956	13,634		218,096	204,531	7.41	
1886	224	29,199	14,860	14,339	15,959	193,908	179,739	6.15	$11.27
1887	229	30,373	15,376	14,997	16,866	229,848	211,223	6.95	12.52
1888	238	31,123	15,805	15,518	17,136	278,114	260,003	8.35	15.17
1889	243	32,790	16,707	16,083	18,153	267,304	244,440	7.45	13.46
1890	259	34,571	17,683	16,888	18,395	313,326	289,703	8.38	15.75
1891	289	36,168	18,438	17,730	20,705	320,386	278,687	7.70	13.40
1892	312	37,466	19,169	18,297	21,560	326,035	289,858	7.74	13.44
1893	313	38,067	19,646	18,421	21,863	305,767	270,729	7.11	12.39
1894	328	39,762	20,503	19,259	23,328	392,393	337,307	8.48	14.46
1895	334	39,773	20,475	19,298	24,090	331,561	296,655	7.46	12.31
1896	339	40,246	20,978	19,868	24,630	337,697	303,147	7.42	12.31
1897	340	41,630	21,342	20,278	24,906	335,324	302,169	7.26	12.09
1898	345	41,667	21,249	20,418	25,671	389,185	349,481	8.38	13.61
1899	352	41,756	21,377	20,419	25,767	401,155	352,012	8.42	13.66
1900	355	42,307	21,515	20,882	25,875	396,137	358,551	8.46	13.86

There were in 1900, 7 Protestant separate schools, all of which made returns, which show that there were 11 teachers, 2 male and 9 female; 416 pupils; and expenditure, $4,061.

Night schools.

Year.	Night schools.	Teachers.	Pupils.	Average attendance.
1891	36	76	2,930	686
1892	32	63	2,293	506
1893	28	65	2,062	522
1894	25	54	1,957	444
1895	31	56	2,130	443
1896	21	41	1,349	329
1897	18	37	408	317
1898	18	42	504	383
1899	16	37	026	252
1900	12	21	795	165

The following are particulars concerning the high schools in Ontario in the years 1879–1900.

High schools, Ontario, 1879–1900.[a]

Year.	Teachers.	Schools.	Pupils.	Boys.	Girls.	Average attendance.	Receipts.	Expenditure.	Average cost per pupil.	
									On total attendance.	On average attendance.
1879	.....	104	12,136	.....	.....	6,902	$417,461	$400,788	$33.02	$57.32
1880	.....	104	12,910	7,030	5,880	7,250	432,309	413,930	32.06	57.09
1881	.....	104	13,136	6,951	6,184	7,270	371,250	345,850	26.00	47.57
1882	232	104	12,348	6,017	6,331	6,580	373,150	343,720	27.56	52.23
1883	.....	104	11,843	6,056	5,787	6,454	378,888	348,946	29.47	54.07
1884	.....	106	12,737	6,386	6,351	7,382	407,978	385,426	30.26	52.79
1885	.....	107	14,250	259	6,991	8,207	458,941	429,702	30.16	52.35
1886	.....	109	15,344	907	7,437	8,707	502,315	477,797	31.14	54.91
1887	398	112	17,459	8,793	8,666	10,227	529,323	495,612	28.38	48.46
1888	.....	115	17,742	8,995	8,747	10,464	684,268	637,055	35.91	60.88
1889	.....	120	18,642	9,422	9,220	10,793	703,042	645,338	34.61	59.71
1890	.....	120	19,395	9,686	9,709	437	676,895	627,208	32.34	54.84
1891	.....	126	22,230	10,892	11,338	13,448	828,578	761,566	34.26	56.63
1892	522	128	22,837	11,058	11,779	13,764	793,812	696,114	30.48	50.57
1893	538	129	23,055	10,908	12,147	13,711	900,721	823,722	35.80	60.08
1894	554	129	23,523	11,318	12,205	14,463	740,651	688,532	29.27	47.61
1895	570	129	24,662	12,032	12,630	14,962	764,728	720,583	29.22	48.16
1896	574	130	24,567	11,881	12,686	14,939	806,631	749,970	30.53	50.00
1897	579	130	24,390	11,942	12,448	14 714	767,487	715,976	29.35	48.66
1898	571	130	23,301	11,520	11 781	14,066	779,451	729,009	31.54	51.83
1899	568	130	22,460	11,071	11,389	13,273	777,343	722,239	32.15	54.41
1900	573	131	21 723	10,565	11 158	12,956	772,332	718,002	33.08	55.46

[a] High schools are not included in the public school statistics. p. 430.

The growth of high schools.—Commenting on the statistics of high schools, the minister of education, in his official report for 1901, says:

Owing to the organization of continuation classes in public schools, there has not been much increase of late years in the establishment of additional high schools. As continuation classes are really doing high-school work, it may be seen that there is a steady progress in the support given to secondary education. In 1867 only 1,283 pupils, or 23 per cent of the whole number, studied commercial subjects, such as bookkeeping. In 1900 this subject was taken up by 9,712 pupils, or 45 per cent of the total attendance. In 1867, 5,171 pupils, or 90 per cent, studied Latin. In 1900 the number taking Latin was 18,073, or about 83 per cent. In 1867, 15 per cent studied Greek, while in 1900 only 4 per cent were engaged in studying this subject. In 1867, 38 per cent of pupils studied French, and none studied German. In 1900 the number taking French had increased to 58 per cent, while 18 per cent were engaged in studying German. The greater attention given to drawing is also a marked feature of the classification.

When high schools were first established in the Province, their primary object was to prepare pupils for the learned professions, and especially for the university. Although their original purpose has not been ignored, the course of study has been enlarged so as to meet the aims of pupils who intend to follow the ordinary pursuits of life. It is in the high schools that most students who desire to become public-school teachers receive their nonprofessional training. This is a valuable function of those institutions, and one that has done much to commend them to the general public. Many young men also, who intend to follow mechanical pursuits or prepare themselves for mercantile life, or for agriculture, take advantage of the high schools. The superior culture which is thus received proves a valuable investment. In 1872 the number of high-school pupils entering mercantile life was 486. In 1900 the number had increased to 1,331. In 1872, 300 pupils left the high schools for agricultural pursuits, and the number in 1900 had reached 757.

The following table will be of interest regarding the occupation of parents of high-school pupils, and will show the classes of our population receiving most advantages from those institutions:

Agricultural	6,221
Commercial	5,448
Mechanical	5,054
Professional	1,953
Without occupation	1,788

Training of teachers.—The provision for securing properly qualified teachers is one of the most important characteristics of the Ontario system.

Every position [says Mr. Millar] from the lowest in the kindergarten to the highest in a collegiate institute must be filled by a trained teacher. No teacher of a high or public school secures a permanent certificate who does not possess qualifications of a threefold nature: (1) Scholarship, (2) a knowledge of pedagogical principles, and (3) success shown by actual experience.

* * * * * * *

No permanent certificate is given to any high or public school teacher who has not in the opinion of his inspector proved himself successful. The lowest grade of certificate is valid only for three years, and the holder who fails to "work up" for one of the higher grade or who in spite of his scholarship or professional training shows that he has mistaken his calling is obliged to give way and allow his position to be held by another. It is, moreover, felt that in a large graded school where important administrative ability is required the principal should have first shown his efficiency in a subordinate position. On this ground the B. A. who has received his professional certificate after attending the school of pedagogy must serve as an assistant for at least two years in a high school or collegiate institute before becoming eligible for a head master's certificate. In other words, a high-school teacher must serve an apprenticeship for two years before he can get the highest grade of certificate, and the public-school teacher has a similar period of probation before he can secure a first-class certificate. There is at the same time every incentive held out to the energetic teacher to rise in the profession. Many of the best positions as teachers and nearly all the positions as inspectors are held by those who started at the lowest step of the stairs. In the establishment of training schools it is assumed that the different grades of schools—kindergartens, public schools, and high schools—require teachers of different qualifications, whose professional attainments should be gained at institutions specially provided in each case for the purpose. With this view there have been established in Ontario the following training schools for teachers:

(1) Kindergartens, including the local schools of this kind where the training is given for assistants' certificates, and the provincial kindergartens connected with the normal schools where the training is given for directors' certificates.

(2) County model schools, where all public-school teachers receive their first professional training, and from which third-class certificates, valid for three years, are awarded.

(3) Provincial normal schools, for the further training of public-school teachers who desire to obtain second-class certificates and which are valid for life.

(4) The school of pedagogy, for the training of those who desire to obtain certificates as first-class public-school teachers, assistant high-school teachers, and specialists in one or more of the six departments of classics, mathematics, English, modern languages, natural science, and the commercial course. The school of pedagogy also gives the professional training which, with the necessary scholarship and experience, enables its graduates to obtain subsequently certificates as public-school inspectors or principals of high schools and collegiate institutes.

Kindergartens.—A young woman who desires to become a regular teacher in a kindergarten must take one year's training at any local school of the kind which has been established by a public-school board. If she is intelligent, fond of young children, and ready to read up such literature as bears on her work, an extensive preliminary course at a high school is not essential, but she will be all the better qualified by having first attended one for three or four years. After the year's training an examination must be passed, conducted by the education department, but the certificate gained only qualifies to teach as an assistant. The holder of such a certificate becomes, however, eligible to attend either of the normal kindergartens at Toronto or Ottawa, and a year's additional course there is required in order to obtain a certificate as director. This certificate qualifies her to take charge of any kindergarten established by a board of public-school trustees.

County model schools.—To begin teaching in any public school in Ontario, it is necessary to obtain what is called a third-class certificate from a county board of examiners, and only those are eligible for the examination who have attended a session at a county model school. To be admitted to a course of training at one of these institutions it is necessary to have first passed the high-school primary examination. The board of examiners consists of the public-school inspector and two other persons appointed by the county council, holding first-class certificates and actually engaged in teaching. They receive for their services $4 per diem

and traveling expenses. This board, subject to the regulations of the education department, sets apart at least one public school in each county for the training of third-class teachers. The course of study for the pupils is the same as in any other public school.

There are 59 county model schools in Ontario, and the average number of students in training at each is about 30. A grant of $150 by the legislature and an additional $150 by the county council are made to each of these institutions, mainly to assist the trustees to provide an efficient staff. The course of professional training extends over about four months—from September to December.

The time of the teachers in training is taken up with (1) observation of the work done by the regular teachers, (2) practice lessons given to the classes or to sections of a class, and (3) criticisms, discussions of methods, and lectures by the principal on pedagogical principles. A third-class certificate is valid for only three years, and if the holder has by that time no higher nonprofessional attainments than a high-school primary certificate, or if he has not been successful in teaching, he is not eligible to enter a normal school, and may be obliged to retire from the profession. This regulation is based on the principle that a life certificate should be given to no teacher until he is tried by the only true test—that of experience. The object is to prevent incompetent persons from holding positions and, by offering their services at low salaries, shutting out energetic teachers and injuring the schools.

It was intended that as far as possible third-class teachers should be assistants, and the intention has been observed in cities and towns, but the supply of second-class teachers is not yet sufficient to confine third-class teachers to subordinate positions in rural districts, where there is often only one teacher in each school. It is, however, quite common for third-class teachers to have passed the junior leaving or even senior leaving examination before attending a county model school, and the good education thus gained by a three or four years' previous attendance at a high school or collegiate institute gives even to rural schools a class of young men and women earnest in their work, determined to rise in public estimation, and who, in spite of too prevalent a tendency to make teaching a stepping-stone to some other profession, have generally a fine intellectual and moral influence upon the youth committed to their care. (Millar's Educational System of Ontario, pp. 54–58.)

The following table gives particulars relating to normal schools, normal college, and county model schools, 1878–1901:

Year.	County model schools.			Normal schools.						Normal college.		
	Schools.	Teachers in training.	Passed final examinations.	Teachers, normal.	Students.	Teachers, model and kindergarten.	Pupils, model and kindergarten.	Receipts from fees of model and normal schools and kindergarten pupils.	Expenditure—model and normal schools.	Teachers.	Students.	Receipts from fees.
1878	50	1,391	1,372	14	326	8	383	$7,752	$34,633	....	....	.....
1879	51	1,295	1,250	15	429	8	301	7,384	33,720	....	....	.....
1880	49	1,413	1,317	13	483	15	607	9,123	39,194	....	....	.....
1881	50	668	615	15	18	15	608	11,523	41,948	....	....	.....
1882	48	882	837	16	200	15	709	13,763	44,886	....	....	.....
1883	48	820	791	15	338	16	760	13,282	45,540	....	....	.....
1884	51	1,117	1,017	15	351	16	742	12,107	40,811	....	....	.....
1885	52	1,305	1,208	12	405	17	658	11,352	37,976	....	....	.....
1886	53	1,463	1,370	11	460	18	669	11,625	38,488	....	....	.....
1887	55	1,491	1,376	13	441	18	763	13,427	40,189	....	....	.....
1888	57	1,072	1,000	12	445	21	794	14,595	39,494	....	....	.....
1889	58	1,208	1,140	12	442	22	928	16,502	41,494	....	....	.....
1890	58	1,293	1,228	12	411	21	948	17,366	43,222	....	....	.....
1891	58	1,404	1,319	12	442	22	895	16,542	43,510	....	....	.....
1892	59	1,293	1,225	12	428	22	842	19,016	45,524	10	90	$1,650
1893	59	1,502	1,456	12	412	22	905	16,873	45,552	....	....	.....
1894	59	1,550	1,587	12	379	21	796	17,231	46,404	....	....	.....
1895	60	1,894	1,644	13	442	21	801	17,859	45,678	....	....	.....
1896	60	1,637	1,549	13	445	21	814	17,860	46,024	....	....	.....
1897	60	1,645	1,384	13	447	23	852	18,578	46,301	12	160	4,354
1898	60	1,288	1,105	10	453	24	858	20,587	46,350	12	176	2,600
1899	59	1,061	978	10	479	25	863	19,903	46,935	12	148	1,845
1900	55	1,045	1,004	16	657	28	888	19,416	50,557	12	144	1,730
1901	55	1,189	1,145	14	613	28	921	.....	.....	15	113	.....

In addition to the normal schools comprised in the above table—

there is organized in each county or inspectoral district a "teachers' institute" for the purpose of imparting instruction in methods of teaching and for discussing educational matters, subject to the regulations of the education department. A grant of $25 is paid by the legislature to each institute and the county or city gives a grant of an equal amount. Many of the associations have valuable libraries of professional works. The public-school inspector takes a leading part in the work of these county associations, and he is generally aided by the more experienced public-school teachers, and the teachers of the one or more high schools or collegiate institutes situated within his district. A director of teachers' institutes, appointed by the education department, frequently attends these meetings, and very often other prominent persons are invited to give addresses on educational topics. The main object, however, is to have discussed pedagogical principles and methods of teaching, and enable teachers to compare notes regarding their daily duties. * * *

In cities these associations often meet monthly under direction of the inspector. Sometimes he finds it desirable to have teachers of the same grade meet together. These institutes have also had the effect of creating greater interest in school work among the general public.

As early as 1878 the number of these institutes was 54, with 3,511 members, or 50 per cent of all the teachers in the province. In 1900 the number of teachers' institutes was 76, and the number of members 8,081, or 86 per cent of the total number of teachers. The expenditure in 1900 amounted to $6,485.

The Educational Association of Ontario resembles in its constitution and purposes the National Educational Association of our own country. Of the Ontario society Mr. Millar says:

It has been in existence for more than thirty years, and meets during the Easter holidays for the reading and discussion of papers relating to various questions of educational interest. The meetings of the body have done much toward giving direction to the school legislation of the province. The association may be regarded, in fact, as a kind of "educational parliament." It receives a grant of $200 a year from the legislature, and its proceedings are published for the information of its members. Besides the sessions of the general association, very many valuable papers are read and discussed in sections of that body. In this way there have been organized sections for the kindergartners, public-school teachers, high-school teachers, training-school teachers, inspectors, etc. There have also been formed associations for the advancement of classics, mathematics, modern languages, and science. The high and public school trustees have organized a provincial association which has in like manner contributed much to the discussion of educational questions. It is now a section of the general educational association.

Industrial and technical education.—As to recent progress in the provision for industrial and technical education, the minister says in his report for 1901:

The addition of domestic science, made to the school programme in 1899, marks another epoch in the development of education in Ontario. The organization and equipment of the Normal School of Domestic Science at Hamilton has enabled several young women to prepare themselves to teach the subject. Through the liberality of Mrs. Massey-Treble another institution for the training of teachers in this department has been established in Toronto.

This institution—the Lillian Massey Normal Training School of Household Science (formerly the Victor School of Household Science and Arts)—has been planned to some extent on the basis of the normal courses followed at Drexel Institute, Philadelphia, and Pratt Institute, Brooklyn, and embodies the advanced methods of this department as taught in those distinguished institutions. Domestic science is also taught in connection with the Young Women's Christian Guild, Toronto. In the Toronto Technical School a forward step has also been taken in providing an excellent course in domestic science. Already several of the public-school boards are taking the initiative in the matter. This subject is taught or is about to be taught in Hamilton, Stratford, Kingston, Brantford, Renfrew, Ottawa, Woodstock, etc. A kitchen has been equipped for the purpose in the London Normal School. It may be expected before long that the large towns and cities, at least, will provide instruction in domestic science.

In other departments of technical education the attention given to the subject

by the public is also encouraging. The attendance at the School of Practical Science, which has made such great progress since its establishment, has warranted an increased expenditure for its equipment and maintenance. To this institution the Province will necessarily look for efficiency in the higher departments of applied science or technical education.

The development of the new parts of Ontario, and the growth of our industries generally, make it essential that an institution which has specially in view the material welfare of the country should be liberally supported by the legislature. It is, however, between the lower and the higher institutions of learning that the break in training in what may be deemed practical in character is most apparent. The kindergarten and the school of practical science should have the missing links supplied. Unfortunately, when the child, after passing through the kindergarten, enters upon the public-school courses his attention is usually diverted from the kind of training he has been receiving and his time is mainly occupied with the acquisition of knowledge. In the public school and high school, as well as in the kindergarten and school of practical science, there should be afforded facilities for becoming practically acquainted with the ordinary agricultural, mechanical, and commercial pursuits. To supply these wants, manual training and other departments of technical education have been added to the school programmes.

In addition to what has been done through the liberality of Sir William Macdonald, and the instrumentality of Professor Robertson, of Ottawa, several school boards have taken steps to move in harmony with the general trend of educational development. In some towns and cities schools are already in operation, and in other places it may be expected classes will be established by the end of another year. Among those cities and towns where manual training is now taught may be mentioned Toronto, Kingston, Brantford, Stratford, Woodstock, Renfrew, Brookville, and Ottawa. In Brantford and Stratford commodious buildings have been provided for technical education.

As in the case of domestic science, there is no doubt that the cost of buildings, equipments, and salaries of competent teachers stands in the way of greater progress. It is nevertheless true that the reluctance to depart from the long-established programmes of study is the chief hindrance to the development of technical education.

Reforms in education, as a rule, come slowly, and doubtless conservatism often serves a good purpose in preventing the hasty introduction of subjects which sometimes turn out to be mere fads. In the matter of technical education, however, the experimental stage in this department has already passed, if we are to be guided by what has been done in Germany, France, England, and the United States. It is just as well to admit that in the matter of practical or industrial education there is great need of progress in Ontario. The resources of our Province are great, and the young men trained in our schools should be prepared to take their part in its development.

In addition to the several classes of public schools comprised in the foregoing tables, there are schools for special classes, "mechanics' institutes and art schools," which are supported wholly or in part by the government.

Schools for special classes—Institution for the deaf and dumb.—The legislature of Ontario has made ample provision to meet the educational requirements of the deaf mutes of the Province. The institution for the deaf and dumb, situated at the city of Belleville, is open to all deaf mutes from 7 to 21 years of age who are residents of Ontario, and who are not deficient in intellect and are free from contagious diseases.

The object in founding and maintaining this institute is to afford educational advantages to those who are on account of deafness, either partial or total, unable to receive instruction in public schools. The period of instruction is seven years, with a vacation of nearly three months during the summer of each year. Parents or guardians who are able to pay are charged the sum of $50 a year for board. There are no charges for tuition, books, and medical attendance. Clothing must be furnished by parents or friends.

The course of instruction is both scholastic and industrial. In the former the work is analagous, so far as the capacity of the pupils will allow, to that of the elementary schools. The modes of instruction employed are the manual alphabet, signs, writing, and articulation or visible speech.

In the industrial department the trades of printing, carpentering, and shoemaking are taught to boys, and girls are instructed in general domestic work,

tailoring, dressmaking, sewing, knitting, the use of the sewing machine, and such ornamental and fancy work as may be desirable.[a]

The usual attendance at this institution is about 240 children. The expenditure in 1900 was $45,252, derived entirely from the government.

Institution for the blind.—The institution for the education of the blind was established in the city of Brantford in 1872. Like the institution for the deaf and dumb, it is intended to be supplementary to the public-school system of the Province. Youths between the ages of 7 and 21 are admitted who are not disqualified by disease or mental capacity, but whose sight is so defective or impaired as to prevent them from receiving education by the ordinary methods. No charges are made for tuition in the case of pupils admitted from Ontario. It is not considered that children deprived of sight or hearing should be treated simply as objects of charity, but that the State owes them an education like other youths of the country.

Pupils are taught arithmetic, grammar, geography, reading, writing, and at a more advanced stage, English literature and history. Reading is taught by the use of embossed type traced by the fingers, and writing with the aid of a grooved card, which acts as a guide to the hand. The ordinary expedients in the case of blind pupils are employed to give information in geography and natural history. Where the ability of the pupil justifies, very valuable instruction is given in vocal and instrumental music. Many graduates of the institution have shown marked proficiency with the pianoforte, organ, or violin, and the lives of hundreds have been made happier by the training thus obtained. A kindergarten class is now an important department of the institution, and the work of the little blind kindergartners creates a great deal of interest.

Considerable attention is given to industrial training. Many of the boys find that the willow shop presents an excellent means of gaining a knowledge of chair and basket making. In a few sessions an intelligent youth may graduate as a competent workman and become able to earn a living for himself.

Girls are instructed in sewing and knitting, including the use of sewing and knitting machines, and have in this way been trained to provide for themselves a comfortable living.

Attention is paid to physical training by instruction in gymnastics and calisthenic exercises. The health of the pupils is carefully looked after, and satisfactory provision is made for religious instruction by devotional exercises morning and evening, and by attendance at the churches of their respective denominations every Sunday. The pupils have access to a good library of embossed books, which are increased in numbers from year to year. There is an attendance at the institute of about 150 pupils.[a]

The expenditure in 1900, derived, like that of the school for the deaf and dumb, from government funds was $33,753.

Mechanics' institutes and art schools.—By an act of the legislature of Ontario any number of persons, not less than ten, may become incorporated as a mechanics' institute or art school. The primary object of these institutes was to form libraries and reading rooms, and to organize a system of instruction by means of lectures and evening classes. In most of the cities and towns, as well as in many of the villages, flourishing mechanics' institutes have been in existence for many years. They have done much toward providing wholesome reading matter for the public, and by systematic courses of lectures much valuable instruction has been imparted. The evening classes that have been established have proved of much advantage to many young persons who have not time to take an extensive high-school course. The subjects taught are English grammar and composition, history, arithmetic, writing, bookkeeping, and drawing. The last of these subjects has received special attention in several of the mechanics' institutes. Free-hand, geometrical, perspective, and object drawing are pursued with considerable success, and in some of the institutes many students have shown creditable proficiency in architectural and mechanical drawing and in forming various industrial designs.

As regards this extensive work which has developed under the fostering aid of the Government, no exact statistics are available. At least five organized schools

[a] Millar's Educational System of Ontario, p. 108.

for instruction in drawing, free and mechanical, modeling, and designing have the advantage of this provision.

In connection with and under the control of the department of education were 263 public libraries in 1900, with over 478,996 books and about 35,329 members. Their property was valued at $381,544, with liabilities of $20,492. Besides these there were 126 free libraries, with upward of 510,054 volumes and 111,879 readers, with assets amounting to $642,757, and liabilities $113,452.

Higher education.—The following institutions for higher education receive grants from the provincial treasury and are under the supervision of the department of education:

The school of practical science, Toronto, registering about 309 students in the first term session of 1901–2.

The University of Toronto, comprising the following faculties and departments:

	Students.
Faculty of law	15
Faculty of medicine	369
Faculty of arts	886
Department of agriculture	1
Department of pedagogy	2
Department of dentistry	79
Department of music	4
Department of pharmacy	57
Department of applied science	20
Department of engineering	3
Total	1,436

University College, affiliated to the university, registering 608 students in 1900–1901.

QUEBEC.

The public school system of Quebec had its origin in parochial schools, which were fostered from the earliest settlement of the colony and which were recognized as the basis of the public system of elementary education provided for by a law of 1846. Government inspectors of schools were appointed in 1852, and in 1859 the form of an organized system was completed by the appointment of a council of public instruction. Peculiar difficulties were experienced in the development of the work because of the religious differences of the French and English populations. The former were adherents of the Roman Catholic Church and naturally resisted all efforts that threatened their relations with the religious schools of which they were staunch supporters. After a period of tentative efforts, a policy was adopted in 1875 which has proved satisfactory to the Roman Catholics, who form the vast majority of the population (1,429,186 against 219,712, census of 1901), while at the same time it affords protection for the rights of the Protestant minority.

The system established by this law, as will be seen by the outline of its principal features given below,[a] provides for the separate control of Roman Catholic and Protestant schools without destroying their organic unity.

Central authority.—In 1859 the central control of the public schools of Quebec was vested in a council of public instruction composed of eleven Catholics and four Protestants. In this form the council continued until 1875, when the law provided for its organization in two committees, the one charged with the inter-

[a] The particulars are taken from the school law in force July 1, 1899, being the latest revised edition up to the present date, compiled by Mr. G. W. Parmalee, secretary of the department of public instruction.

ests of the Catholic schools, the other with those of the Protestant schools. The first-named committee consists of—

(1) The bishops, ordinaries, or administrators of the Roman Catholic dioceses and apostolic vicariates situated either in whole or in part in the Province: ex officio members. (2) An equal number of Roman Catholic laymen appointed by the lieutenant-governor in council.

The Protestant committee consists entirely of Protestant members, equal in number to the appointed members of the Roman Catholic committee, and, like them, appointed by the lieutenant-governor.

The powers of the council and its committees are as follows:

School questions, in which the interests of Roman Catholics and Protestants are collectively concerned, are under the jurisdiction of the council of public instruction, and shall be decided by it.

School questions, in which the interests of Roman Catholics or Protestants are exclusively concerned, are decided by that one of the two committees which represents the religious belief which the party concerned professes.

Each of the two committees of the council of public instruction has separate sittings. It appoints its chairman and its secretary.

It is the duty of each committee to make regulations, subject to the approval of the lieutenant-governor in council, to determine what constitutes an elementary school, a model school, and an academy.

The Roman Catholic or Protestant committee, as the case may be, and as the provisions which concern them require, may, with the approval of the lieutenant-governor in council, make regulations:

For the organization, administration, and discipline of public schools.

For the division of the Province into districts of inspection and for establishing the boundaries of such districts.

For the government of normal schools.

For the government of boards of examiners.

For the examinations of candidates for the office of school inspector.

For determining the holidays to be given in schools.

Each committee shall approve the text-books, maps, globes, models, or other articles for use in the schools of its religious belief, and, when it deems it expedient, it may withdraw the approval it has given.

Each of the two committees may revoke the diploma of any teacher of its religious belief convicted of bad conduct, immorality, drunkenness, or grave neglect of duty. [The mode of procedure in such cases is carefully specified in the law.]

The superintendent of public instruction, who is appointed by and holds office at the pleasure of the lieutenant-governor, administers the department of public instruction, which comprises, besides the superintendent, two secretaries, who act as deputy heads of the department under his direction.

The superintendent is ex officio a member of the council of public instruction and of each of its two committees, but he has a right to vote only in the committee of the religious faith to which he belongs. In the exercise of his functions he is bound to comply with the directions of the council of public instruction or with those of its committees. He compiles and publishes reports of all schools and educational institutions, and every year draws up, in accordance with the directions of the council or of its committees, a detailed statement of the sums required for public education, and submits this statement to the Government. He has power to hold inquiries, to summon before him and administer oaths to witnesses or parties in all difficulties which may arise in reference to schools or school-houses. He may also delegate this power to hold inquiries to the secretaries of the department or to school inspectors. When the investigation is held at the request of one or more ratepayers, the superintendent may require the person who applies for it to deposit an amount sufficient to cover the expenses.

The superintendent is the depositary of all documents respecting matters under the control of the department of public instruction, and may deliver copies or extracts thereof, in consideration of a remuneration fixed by the lieutenant-governor in council.

The superintendent may delegate to one of the secretaries of the department all the powers conferred on him by law, if he be absent from the Province.

It is the special duty of the superintendent—

1. To receive from the provincial treasurer, in addition to the amounts appropriated for superior education, all sums of money appropriated for public school purposes, and to distribute them among the school commissioners and trustees of

the municipalities in proportion to their population as ascertained by the last census.

2. To prepare and cause to be printed recommendations and advice on the management of schools for the school commissioners and trustees and for the secretary-treasurers and teachers.

3. To keep correct books and distinct schedules of all the matters under his superintendence, so that information may be promptly obtained by the Government, the legislature, or the school visitors.

4. To examine and control the accounts of all persons, corporations, and associations accountable for any public moneys appropriated and distributed under the laws relating to schools, and to report whether they are bona fide applied for the purposes for which they were granted.

5. To lay annually before the legislature a detailed report of the actual state of education during the period to which the report relates; and

6. To state in the yearly report to the legislature what he has done with the amounts voted for education during the period covered by it.

The lieutenant-governor in council may, if he sees fit, assign to the superintendent certain other duties. He may require him "to establish or to assist art, literary, or scientific societies, libraries, museums, and picture galleries, whether these be founded by such societies or by the Government, or by institutions receiving Government aid." The superintendent may be required "to encourage competitions and examinations; to distribute diplomas, medals, or other marks of distinction for artistic, literary, or scientific work; to establish schools for adults and instruction for workmen and artisans." In fact, all which in general concerns the support and encouragement of arts, letters, and science and the distribution of the funds voted for those purposes by the legislature may be intrusted to the superintendent as one of his special duties by order of the lieutenant-governor in council.

The superintendent is required to give bonds and receives an annual salary of £3,000.

The government school inspectors are appointed by the lieutenant-governor in council, but are subject to the direction of the superintendent.

These officials must be at least 25 years of age, must have had experience in teaching, and must be furnished with the diploma of an academy or public school, or must pass the examinations for the inspector's diploma (brevet de capacité).

Local authorities.—The local unit of school administration in Quebec is a school municipality, i. e., any territory erected into a municipality for the support of schools under the control of school commissioners or of trustees elected by those who pay a property tax (ratepayers). The commissioners are empowered to divide a municipality into school districts and to maintain one or two schools in each district.

The school law provides that—

"If in any municipality the regulations and arrangements made by the school commissioners for the management of any school are not agreeable to any number whatever of the proprietors, occupants, tenants, or ratepayers professing a religious faith different from that of the majority of the inhabitants of such municipality, such proprietors, occupants, tenants, and ratepayers may signify such dissent in writing to the chairman of the commissioners.

"The notice having been duly served, the dissentients may proceed, after the lapse of two weeks, to elect three school trustees, who will have the same power with respect to dissentient or separate schools as the commissioners have with respect to the schools of the majority. The trustees alone have the right of imposing and collecting the taxes upon the dissentient inhabitants."

The commissioners or trustees elected as provided above constitute what is technically termed a school corporation. Every such corporation has the services of a secretary-treasurer, appointed by the body. This official, who is under bonds, has charge of all the books, registers, legal papers, and other documents pertaining to the corporation, and acts as its financial agent. He prepares and submits to the school commissioners or trustees in July of every year a detailed statement of all receipts and expenditures for that year. His accounts are examined by one or two auditors, appointed by the corporation. If any difficulties arise between

the school corporation and the secretary-treasurer they may be referred to the superintendent of public instruction, whose judgment in the matter is final.

The commissioners or trustees, as the case may be, have full control of the public schools in their respective areas, subject only to the general requirements of the council. They engage the teachers, determine their salaries, provide the schoolhouses and equipments, and in general discharge the same duties as the school trustees of our own country.

The separation of the schools in each district by religious differences completes the policy begun by the division of the central council into two autonomous committees.

Classification of schools.—In addition to the schools under control—that is, schools in charge of the elected school commissioners or trustees of each municipality—there are many Roman Catholic schools in charge of the clergy or of the religious orders, characterized as independent or partly independent schools, which receive grants either from provincial or from local funds. It is difficult to classify these different schools on the same basis as the public schools of Ontario or the similar schools of the United States. In general terms, the public schools of Quebec, whether Roman Catholic or Protestant, are distinguished as elementary schools, model schools, and academies. This classification is followed also by the independent schools. The elementary schools correspond practically to the first four or six years of the public schools in the United States.[a] In 1900 they enrolled 201,124 pupils, distributed as follows: Roman Catholic schools under control, 169,729; independent Roman Catholic schools, 4,884; Protestant schools under control, 26,511.

Above the elementary schools are the model schools and academies. The model schools, like the elementary schools, comprise Roman Catholic schools (under control and independent) and Protestant schools. They generally include an elementary division which covers in part the ground of the elementary school and an advanced course which laps over that of the academies. A model school can be established by agreement between the school commissioners or trustees of two or more municipalities; it is under the control of the commissioners of the municipality in which it is situated, but pupils from this municipality have no more rights in the school than those of other contributing municipalities.

An academy may be authorized by the superintendent of public instruction upon application from the commissioners of two or more municipalities. When established the academy passes under the control of trustees appointed from their own number by the commissioners or school trustees of the municipalities upon whose initiative the academy is authorized. The schools are supported mainly

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[a] The scope of the elementary schools may be inferred from the following programme of the fourth or last year of the course:

Roman Catholic schools.—Programme, fourth year: Catechism: French—reading, grammar; English—oral spelling, dictation, translation; copy writing, exercise copy books, sacred history, continuation; history of Canada, studied in a text-book, principal passages and events; arithmetic (mental and written), review of the work of the preceding year, reduction, the compound rules, practical problems, tables of weights and measures, bookkeeping, receipts and disbursements of a family, accounts, invoices, receipts, bills, or notes; geography—Canada and the other countries of America, the continents, and oceans; map drawing—first attempts, drawing from objects, object lessons, agriculture, oral lessons. The teacher reads and explains a manual on the subject. (Condensed from report of the superintendent of public instruction, 1900–1901, pp. 189, 193.)

Protestant schools.—Programme, fourth year: Scripture reading and lessons in morals; English—reading, dictation, composition, grammar; French (optional)—reading easy translations, verbs; arithmetic, mental and written—fractions, decimals, percentages, interest, etc.; geography and history—Eastern hemisphere, map drawing, outlines of Canadian history, and relations to British history; object lessons continued. (Superintendent's report, 1900–1901, p. 221.)

by fees, which may exceed the fees charged in the elementary schools. Both model schools and academies share in the provincial grant for superior education.

As regards the course of study, the model school proper—that is, excluding the elementary division—begins with the fifth year or grade of the public school course, and covers two or four years. In the latter case the third and fourth years are called the academy course. The model school is intended for pupils who attend school up to 16 years of age: the academies may prolong the education to 18 years of age. These distinctions, however, are not rigidly maintained. Speaking generally, we may say that the model schools and academies cover the ground of our own grammar and high schools, excepting that the Roman Catholic schools of this class do not provide instruction in the classics.

In 1900 the total enrollment in model schools and academies was 113,757, distributed as follows:

	Pupils.
Roman Catholic:	
Under control	72,077
Independent or partly independent	32,784
Protestant:	
Under control	8,705
Independent	191

Of the total pupils in the Roman Catholic schools of this class, 87,408, or 83 per cent, were in the elementary division; 14,595, or 14 per cent, were in the model course or fifth and sixth grades, and the remainder, 2,858, or 3 per cent, were in the academy course. Of the total pupils in the Protestant model schools and academies, 8,896, there were in the elementary division 2,538, or 28.5 per cent; in the model course, 1,345, or 15 per cent, and in the academic course 5,013, or 56.5 per cent. If we regard the academic course (which comprises two or three years) as the equivalent of a high school course, this gives altogether 7,871 pupils in high schools of Quebec having a semipublic character.

Training and qualifications of teachers.—Besides the schools above enumerated, the law makes provision for the establishment of one or more normal schools with attached model or practice schools. The lieutenant-governor is authorized to make all needful provision for the housing and equipment of these schools. To provide for the purchase of suitable sites and the erection of buildings for the normal schools, the chief executive may order that the sum of $8,000 shall be yearly set aside out of the grant for superior education, the same to form a fund called the normal school building fund of the province of Quebec. Besides the annual sum set apart from the superior-education fund, there is also allowed yearly, out of the common school fund for the Province, a sum not exceeding $6,000 to defray the salaries of officers and other contingent expenses of normal schools, and a sum not exceeding $4,000 annually to facilitate the attendance of teachers in training at normal schools. The lieutenant-governor is authorized to increase the yearly allowance for normal schools, if it be found necessary; such increase not to exceed $10,000 in any one year.

General regulations for the normal schools are made by the council of public instruction, or by its committees, with the approval of the lieutenant-governor. The normal schools themselves are under the control of the superintendent of public instruction.

The law requires that persons desiring to teach in the public schools of Quebec must either have a normal school diploma or a government certificate. The certificate is obtained by passing an examination before an examining board formed by the appointment of the lieutenant-governor upon the recommendation of one or the other of the council committees. The following are, however, exempt from the above requirements: Every priest, minister, and ecclesiastic, and every person who

is a member either of a religious order instituted for educational purposes or of a religious community of women. In the Roman Catholic schools a large proportion of the teachers belong to the orders specified.

Although the law is thus specific as to the requirements of teachers it is very imperfectly enforced.

Sources of income.—The sources of income for the public schools are provincial grants, local taxes, and fees. The official reports do not enable one to indicate exactly the amount of public funds appropriated for each class of schools. In the financial year 1900–1901 there were paid for public education from local taxes, $1,466,611; by the provincial government for public and normal schools, $216,000; for inferior education, $78,910; for other educational institutions and purposes, $159,040; received from fees, $1,533,193; total, $3,453,754. Of this sum it will be seen the government contributed 13.14 per cent, local taxes 42.46 per cent, and fees 44.40 per cent.

The provincial grant for education comprises a grant for elementary schools and a grant for superior education. The former is paid by the superintendent of public instruction to the district school commissioners or trustees.

In order to share in this grant a school municipality must furnish proof that it has conformed to the requirements of the school law as regards length of the annual school session (eight months), number of registered pupils (not less than 15), the annual public examination, the annual report to the superintendent of public instruction, the collection of school fees, the employment of certificated teachers, the payment of teachers' salaries, the use of authorized books, and in general make it evident that the regulations and instructions of the central authorities have been carried out. It is provided, however, that if the "school commissioners or trustees, as the case may be, of a school municipality have endeavored in good faith to have the law carried out, a share of the school fund may be allowed them."

The fund for superior education is distributed to the model schools and academies and to colleges and universities. (See list, pp. 460–1.)

With this general survey of the educational system the following statistical summary becomes intelligible:

Comparative statement of educational movement in the province of Quebec.

	1867-68.	1872-73.	1877-78.	1882-83.	1887-88.	1892-93.	1897-98.	1899-1900.	1900-1901.
Elementary schools	3,355	3,630	4,006	4,404	4,640	4,963	5,127	5,189	5,245
Model schools	318	343	290	333	485	493	534	566	557
Academies	190	212	282	246	149	141	153	156	168
Roman Catholic and Protestant colleges	36	37	40	31	23	23	22	22	19
Special schools	2	6	17	18	18	13	15	11	11
Normal schools	3	3	3	3	3	3	3	4	5
Schools annexed to normal schools							5	6	
Universities	3	3	3	4	4	4	4	4	
Total	3,907	4,234	4,701	5,039	5,322	5,640	5,863	5,958	6,015
Pupils in—									
Elementary schools	156,820	155,916	167,031	170,858	181,402	187,979	204,259	199,422	201,124
Model schools	22,700	28,588	20,429	26,378	70,417	79,223	69,852	81,042	81,239
Academies	26,010	32,488	38,852	38,278			30,106	30,789	32,518
Colleges	6,189	7,113	7,874	6,879	3,918	5,024	5,557	5,920	5,915
Special schools	278	741	1,886	1,262	1,905	1,561	1,472	1,975	1,998
Normal schools	256	246	306	390	298	284	348	342	353
Schools annexed to normal schools						789	970	1,052	1,068
Universities	584	758	731	1,240	1,193	1,109	2,183	2,219	2,412
Total	212,837	225,850	237,089	245,225	259,131	275,969	314,727	322,761	326,507
Male lay teachers	608	666	626	497	494	677	743	720	791
Male religious teachers	311	498	593	602	912	1,128	1,415	1,463	1,535
Female lay teachers	2,969	3,507	3,931	4,448	4,962	5,394	5,903	6,168	6,296
Female religious teachers	648	956	1,028	1,324	1,804	2,098	2,432	2,495	2,748
Total	4,536	5,657	6,178	6,871	8,172	9,297	10,493	10,855	11,370

Comparative statement of general school contributions in the Province of Quebec.

Paid by the taxpayers:									
Annual tax	$291,969	$400,450	$615,810	$839,566	$804,413	$995,282	$1,226,954	$1,305,991	$1,335,045
Special tax	47,986	49,743	50,247	60,745	72,718	72,278	91,579	108,063	131,566
Monthly fees	452,898	715,061	889,306	1,181,034	139,241	160,151	199,032	162,425	222,132
Fees from subsidized educational institutions	520,326	696,846	694,211	928,394	1,006,526	1,111,042	1,090,556	1,105,277	1,311,061
Total	1,313,149	1,862,700	2,249,574	2,809,739	2,022,898	2,345,753	2,608,121	2,681,756	2,999,804
Paid by Government for—									
Superior education	67,972	78,410	78,410	78,410	78,410	78,410	78,410	78,910	78,910
Public schools	116,000	145,000	155,000	155,000	160,000	160,000	160,000	160,000	160,000
Schools in poor municipalities	4,000	8,000	8,000	6,000	6,000	10,000	10,000	13,000	13,000
Normal schools	40,627	44,625	46,000	46,000	42,000	43,000	43,000	43,000	43,000
Schools for deaf and dumb and the blind			12,000	13,000	13,200	13,000	13,000	14,390	16,390
Teachers' pension fund	2,600	5,100	8,000	8,000	9,000	9,000	9,000	13,000	13,000
School inspection	19,510	23,151	30,000	28,745	29,825	42,000	36,000	36,000	36,000
Council of public instruction				1,500	2,000	2,000	2,000	2,000	4,000
Journals of public instruction	3,053	2,400	2,800		900	2,250	2,250	6,050	6,050
Prize books	3,000	2,500	6,500	9,500	5,985	6,000	6,000	2,000	2,000
Grants to certain superior educational institutions					5,900	9,700	5,000	4,500	4,500
School inspectors' congress						500			
Night schools						7,500	12,000	12,000	12,000
School museum						600	600	600	600
Council of arts and design					9,000	10,000	13,000	13,000	13,000
Special grant							53,000	50,000	50,000
School of navigation, Quebec								1,000	1,000
Superintendent's report								500	500
Total	256,762	309,186	346,710	346,145	302,220	393,060	443,290	449,950	453,950
Grand total	1,569,191	2,171,886	2,596,284	3,155,894	2,385,118	2,739,713	3,051,381	3,131,760	3,453,754

NOVA SCOTIA.

Prior to the passage of the school law of 1864, which provided for a uniform system of public schools in Nova Scotia, private and parochial schools existed in Halifax and in the more settled portions of the Province and were fostered by grants from the public treasury. During this early period several measures were passed which showed plainly the sense of public responsibility in this important matter and the recognized necessity for legislative action looking to the educational interests of the entire Province.

Thus the system established in Nova Scotia by the law of 1864, like the Ontario system established twenty years earlier, embodied the results of a series of efforts and experiences. In Nova Scotia, as in Ontario, the need of centralized control, especially in view of the disabilities of poor and isolated districts, was clearly recognized, but the former Province did not intrust such large powers to the central authority, and in particular sought to avoid political entanglements in its constitution.

The supervisory functions of the central authority and its control of the provincial grant to the schools make it a unifying and stimulating force without prejudice to local freedom and initiative.

The principal measures leading up to the passage of the law of 1864 and the distinctive features of the system created thereby are set forth in the following citation from an account of the system by the present superintendent, Hon. A. H. Mackay.[a]

Historical beginnings.—In 1832 the Province was divided into districts averaging the size of half a county each, under a board of school commissioners appointed by the governor in council. These boards were intrusted with the power of organizing school sections approximating 4 miles in length and breadth where possible, and of otherwise stimulating and directing the formation and maintenance of schools in the district under their charge. The funds for each school were obtained mainly from local subscriptions, which were supplemented by the grant from the provincial treasury. In 1841 the legislature was opened by a speech of Lord Falkland, the governor, in which he advocated the adoption of the principle of assessment; but the house of assembly was still afraid, and contented itself with the further amendment of the act of 1832. Provision was also made at length in nearly all the schools for the education of free scholars, but they were a small minority.

In 1850 a provincial superintendent of education was appointed in the person of the late Sir John William Dawson, of McGill University. Under his short term of three years there was a rapid advance in the education of the legislature and the country with respect to the advantage of improved buildings and methods, the establishment of a provincial normal school, and the adoption of the system of local assessment. In 1855 the normal school was opened under the principalship of the second superintendent, Rev. Dr. Forrester. Under his advocacy from the platform and the press the time came in 1864 for the establishment of the free-school system.

The present Sir Charles Tupper, who was leader of the Government in 1864, was able to introduce the bill with the ultimate concurrence of the leader of the opposition, the late Sir Adams G. Archibald, and without any serious resistance it was eventually passed.

Central authority.—The council of public instruction consists of the members of the executive council of the provincial government, five of whom constitute a quorum. This body determines the regulations for the expenditure of the funds appropriated for educational purposes, the classification of teachers, and for the administration of all matters generally which fall within the scope of the educational statutes. It prescribes the school books and the courses of study for the schools of all grades. It directs the normal school, appoints the provincial examiners of the high-school students, inspectors, and district school commissioners, and has power to make provision for any exigency not inconsistent with the statutes.

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[a] Cited from volume 4 of the Special Reports on Education issued by the Board of Education, England.

The superintendent of education is appointed by the governor in council, and is also the secretary of the council of public instruction. His duties are generally the same as those of a minister of education, with the exception that he has not to find a constituency for election, and is answerable directly to the government instead of to the house of assembly. The education department in Nova Scotia has hitherto had the good fortune of being considered nonpartisan, although the council is exclusively made up of the members of the provincial cabinet and its secretary, the superintendent.

The district commissioners of schools are continuations of the boards which were in 1833 invested with the power of directing and stimulating education in the days of voluntary subscriptions for the support of schools, when local efforts of specified degrees were rewarded by certain provincial grants. There were recently 33 such boards presiding over as many divisions of the Province, but their functions are now mainly confined to the rectification of the bounds of the school sections and the determination of those which, owing to their geographical and other conditions, should be placed on the list of those receiving special aid, one-third more of both the county and provincial grants than the normal ratio.

The inspector, who is appointed by the council of public instruction on the recommendation of the superintendent of education, is the secretary of each of these boards within his inspectorate, but this duty is merely an incidental part of his work. The Province is subdivided into 10 inspectorates, which gives on an average over 200 schools to each inspector. This office is one of the most important in the whole system, for the inspector directly inspects each school within his district, makes up the pay list from the return from each of the schools, pays the provincial and county grants to the teachers and trustees, when the same is authorized to be paid from the education department, to which a summary of all returns, etc., is promptly sent as the basis of the division of the funds; withholds approval from returns of schools in which the law has not been observed until there is the required reform, etc. The inspectors are the direct agents of the education office, reporting monthly on all the schools visited by them, and coming into authoritative contact with teachers and trustees in every section of the Province.

Local authorities.—The school section is the unit corporation for school purposes, and geographically includes a territory about 4 miles in extent with the school near the center. There is an injurious tendency in many sections to reduce the geographical limits of the section for the purpose of having all the children near the school, while neither the wealth nor the population of the section will allow a good teacher to be employed. The experience of the educational authorities proves that under ordinary circumstances it is better to be 2 miles distant from a good school than to be only 1 mile from a poor school. The section is governed by a board of three trustees, one of whom retires each year at the annual meeting of the section, when his successor is elected. In towns having a municipal government the board of trustees is known as the school commissioners, three of whom are appointed by the municipal council and two by the provincial government, one member each retiring annually. In the city of Halifax there is a board of 12 school commissioners, 6 appointed by the city council and 6 by the provincial government, the two senior of each group retiring after serving three years. Cities or towns, no matter how much their extent may exceed the normal 4 miles, form but one school section. The great mass of school sections are rural, with a simple board of three trustees; the number of sections in 1898 was 1,874.

The annual school meeting is the most important educational event in the rural school section. Except in certain specified sections it is fixed by law to be held on the last Monday of June, just before the close of the schools for the year, and seven or eight weeks or more before the opening of the schools in the new school year. It is the annual parliament of the section, where the taxpayers assemble to discuss the educational administration, elect the new trustees, and vote the amount of supply to be levied upon the section for the support of the schools for the following year. The sum of the valuations of the property within school sections having schools was in 1897 $80,738,448, in 1898 $81,726,341, and in 1900 $82,641,987. The value of the school property itself was in these years $1,484,635, $1,502,711, and $1,675,629, respectively. The total amount voted at the annual meeting of 1900, to be assessed on the section property, was $519,620, $120,551 of which was for building and repairs and $380,681 to supplement the fund from the other two sources for the salaries of teachers. One of these sources is the county fund, which is raised under the statute by the collection, with the rates (property taxes) of each county, of an additional sum equal to 30 cents per head for each inhabitar

within the county at the last decennial census. This fund is distributed annually to the board of trustees of each section which conducts an approved public school as follows: First, a small grant of $25 for each teacher employed for the year in the section; then the balance and greater portion is divided to each section in the municipality in proportion to the grand total days' attendance made by the pupils in each school according to the returns sent in at the end of the year. This stimulates the trustees to secure as large an attendance of pupils as possible, in order to increase their revenues from this source.

The provincial grant is the third source of revenue for the support of the school, but it is paid directly to the teacher and is dependent on the class of license held as well as on the number of days taught. Originally a Class D, or third-class, teacher received a grant of $60 per annum; Class C, or second-class, teacher, $90; Class B, or first-class, $120, as well as Class A, or county academy, teachers who were not engaged in a county academy. But in 1888, in order to prevent an excessive growth of the grant from the provincial treasury, the sum total was definitely fixed at $167,500, and in 1895 at $182,500 (in 1900 raised to $190,000), to be paid in joint proportion to the days taught and the scale above given. The scale was extended to allow $180 for Class A teachers as subordinates, and $220 as principals of schools with high-school departments of prescribed magnitude. For 1900 the total amount of county grant to the school sections was practically the $120,000 authorized, and the total amount of the provincial grant to teachers, 2,485 in number, was practically the $182,500 authorized by the statute.

This sum does not include the grants to the county academies which in 1900 amounted to $16,720. The county academy is that high school within the county which receives a special grant on account of its agreement to admit free any students from the county who are able to pass the county academy entrance examination. This examination is conducted by the staff of the institution under general regulations upon question papers prepared by the education department, on the first eight years' work of the public schools, generally known as the "common" school grades. The county academies are of four orders, determined merely by the extent of their equipment, and receive annually the respective grants of $500, $1,500, and $1,720 in lieu of the provincial grant to its teachers. These grants are an inducement to the shire town of each county to make its high school of superior merit as compared with the other high schools which may be within the county and which may capture the grant if the shire town fails to provide the required accommodation. As a matter of fact, there are many high schools in some of the 18 counties of the Province which are superior to the county academies in the poorer counties. The course of study for these institutions is that of the grades IX, X, XI, and, if desirable and possible, XII. The number of high-school students enrolled in the other high-school departments doing exactly the same kind of work, without participation in the academic grant, but in the enjoyment of the less liberal provincial grants to teachers according to the general system, was 4,053. Not being subject to the special testing of the county academies, these numbers include a greater proportion of pupils who are not so fully up to the standards. In many of the "common" schools a few of the pupils are doing a portion of the high-school work, as are also some special students in the high school proper. These numbered during the same year 1,052.

From 1864 to 1880 the only suggestion of a course of study for the common (elementary) schools was the list of books prescribed and for the high (secondary) schools the syllabus of the teacher's examination, of which there were four grades, known as D, C, B, and A, one advancing above the other by about an average year's work, except the latter, which meant about two years' additional work, and fitted a candidate for a county academy head master's diploma.

From 1880 to 1885 the educational department, assisted by the provincial educational association, developed a course of study for the common schools first, then for the high schools. In 1893 the high-school course was made the basis of a system of high-school examinations, which are now held at forty different stations throughout the Province in the first week of July, the closing week of the school year. Provincial certificates of grades D, C, B, and A are given to all candidates with the value of each subject or paper as marked by the provincial examiner of that subject, those not reaching the prescribed standard for a "pass" receiving a "decapitated" certificate bearing simply the full details of the examination record. Foreign languages are optional in this course. In the twelfth grade of the public schools, which is the fourth grade of the high schools, or grade A, there is a bifurcation into a classical side and a scientific side with a nucleus of subjects in common, leading respectively to the certificates of A (class-

ical) and A (scientific). The secondary schools are in this manner federated into a species of provincial university of secondary rank. The certificates of scholarship of the various grades are accepted as the scholarship qualifications of the different classes of teachers, and also in lieu of the entrance examinations into the various universities and technical colleges, thus doing away with the former necessity of having different classes in the same school if students in it were preparing for different colleges. In this manner the articulation of all private as well as public institutions of the higher education with the public-school system is perfectly accomplished. Even when the unsuccessful candidate has not "passed," his certificate, if bearing marks high enough on the various subjects required by the entrance standard of any given institution, will exempt him from examination upon those subjects. As the examination is conducted in the most impersonal manner by provincial examiners whose scholarship is universally acknowledged, and as the course of study and the examination papers themselves, as well as the results, are published in the official journal of the education department, the standards can be most easily understood by all educational officers who accept them at their value.

Classes of schools.—The public schools comprised in the system above outlined include the common school of eight grades (when possible, a preliminary year of kindergarten for pupils under 5 years of age is allowed) and the high school of four grades.

Qualifications and classification of teachers.—Teachers must have a Government license, which is granted upon proof of scholastic and professional qualifications. The former are tested by an examination which, as stated above, is either that required for graduation from a high school or its equivalent. For professional qualification the candidate must be either a graduate from the normal school or must pass an examination in the theory and art of teaching.

Teachers are classified in four grades. The school trustees of each district determine the amount of salary for the teachers of the same, but, as explained above, the provincial regulations fix the amount of the Government grant payable to the teacher of each class.

For the year ending July, 1901, the average salaries from all sources were as follows:

	Male.	Female.
Class A	$763.41	$432.87
Class B	384.34	293.92
Class C	257.61	233.62
Class D	192.68	165.41

The development of the normal school (which receives an annual grant from the treasury, amounting in 1901 to $11,896) and the establishment of manual training schools in close relation with it are the most noteworthy recent events in the educational record of the province. With respect to these developments the superintendent says:

The provincial normal school, which has always been doing good work from the date of its institution, under Dr. Forrester in 1855, has now been more fully equipped than ever before.

The new science building, which also functions as the school of agriculture, has been completed with a full set of well-furnished laboratories for biological work, qualitative and quantitative chemical work, mineralogical and geological work, and a special library. The main building has been partly remodeled internally, fitted up with modern accommodations, a physical laboratory, and an enlarged general library.

The Macdonald Manual Training School, under the charge of T. B. Kidner and his staff, is installed in the original normal school building of 1855 and looks out on the campus of the new building.

The Truro Domestic Science School, under the directorship of Principal Camp-

bell, and also affiliated to the normal school, is by the side of the manual training school.

And finally, the public schools of Truro are affiliated as training schools, where student teachers have to develop power and demonstrate their skill in teaching a regular school. These schools are conducted by an able staff of teachers.

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The school of agriculture has its lecture headquarters and its chemical and biological laboratories and greenhouse in the science building of the normal school. The dairy, live stock, barns, piggery, poultry, agricultural, and horticultural operations are used in the practical instruction on the provincial farm. The teachers in attendance at the normal school are required to take courses here to enable them to understand the elements of agriculture, to the extent of being able to interest their pupils in the observation and study of the laws of nature on which the attachment to and success in husbandry greatly depend. Farmers' classes alternate. * * *

In my previous reports I endeavored to show the importance of developing the industrial sentiment in the public schools instead of the professional notion hitherto prevailing so exclusively. I pointed out what was being done in other countries and our own few attempts in school gardening and nature study.

About two years ago, as can be seen from the Journal of Education, I had been considering the possibility of utilizing some of the best trained graduates of the school of agriculture as special teachers of the so-called "nature lessons," which is the elementary scientific basis of the art of agriculture. The plan proposed was to find, say, ten schools which could employ such a teacher half a day each week. But rural trustees who had faith in such a plan to the number of ten in one district of the country could not be found. The teachers trained to give useful nature lessons were very few. Our present normal school, in affiliation with the school of agriculture, is now giving a course of such instruction to all. But a course of even one year, in combination with the other subjects requiring attention, is hardly sufficient to develop the knowledge and power desirable. A graduate course of the school of agriculture is necessary.

Professor Robertson, who is the adviser of Sir William Macdonald's intelligent generosity, directed hitherto especially to manual training schools, and adapted rather to towns and villages than the country, saw from his experience of what was done in some European countries and from the similar work which he had already undertaken, that such a scheme might be demonstrated to be of special value to rural communities.

The idea then in his mind was further matured and expressed at the convention of the dominion educational association in Ottawa. It has later been specifically formulated and published as an experiment which Sir William Macdonald is willing to make to prove its value to rural schools.

The school includes the establishment of a "nature-study" school at Guelph, the homologue of our school of agriculture, in affiliation with the normal school at Truro, and the support of his trained teachers for a few years in a few selected localities in each province of the Dominion. Sir William's demonstration will be profoundly appreciated and eagerly observed in Nova Scotia. However, not only the general public, but teachers whose accomplishments are solely in the department of words instead of things, may find it hard to see the great use of such training. Hence it becomes the duty of all interested in the improvement of our education to think it out fairly and fully before giving expression to opinion.

The following tables show the enrollment in public schools and the expenditure for public education for the years specified:

Nova Scotia educational statistics, public schools, 1880–1901.

Year.	Schools.	Pupils.	Boys.	Girls.	Average attendance.	Proportion of population at school.	Cost per pupil enrolled.
1880	1,811	78,808	39,428	39,380	43,375	1 in 4.9	$7.42
1885	2,065	86,578	43,059	43,519	50,287	1 in 5	7.54
1890	2,242	88,170	44,047	44,123	50,915	1 in 5.1	8.04
1895	2,305	100,555	51,885	48,670	54,086	1 in 4.5	8.07
1900	2,417	100,129	50,945	49,184	56,224	1 in 4.4	8.86
1901	2,387	98,410	49,768	48,642	53,643	1 in 4.6	8.58

Total receipts by the Province of Nova Scotia for school purposes, 1880–1901.

Year.	Government grant.	Municipal aid.	Other sources.	Total.
1880	$196,217	$107,181	$281,561	$584,959
1885	199,188	120,328	334,044	653,560
1890	213,434	118,349	377,529	709,312
1895	238,760	119,900	453,144	811,804
1900	248,309	119,923	519,620	887,852
1901	254,778	119,876	470,108	844,762

NEW BRUNSWICK.

Central authority.—The central control of public education in New Brunswick is vested in a board of education comprising the lieutenant-governor, the members of the executive council, the president of the University of New Brunswick, and the chief superintendent of education. The last named is the secretary and chief executive officer of the board. In his appointment regard is had solely to his professional fitness and executive ability.

The board of education has extensive powers. It is authorized to provide for the establishment of a normal school with model or practice departments; to appoint a principal for the same at a fixed salary ($1,400), and to appoint the necessary assistants; to create inspectorial districts and appoint qualified inspectors (not exceeding eight in number); to determine the salaries of these officials and the allowances for traveling, office expenses, etc. (total not to exceed in each case $1,200); to divide the Province into school districts; "to make regulations for the organization, government, and discipline of schools, for the arrangement and order of school premises, and for the classification of schools and teachers; to appoint examiners of teachers, and to grant and cancel licenses;" to prescribe textbooks and apparatus for the use of schools, books for school libraries, plans for the construction and furnishing of schoolhouses, and courses or standards of instruction and study for schools; to determine all cases appealed from the decisions of inspectors; to prepare and publish regulations under which public moneys may be drawn and expended for schools.

Local authorities.—The local school districts into which the Province is divided must contain each not less "than fifty resident children, between the ages of 6 and 16 years, unless the area of such district shall contain 4 square miles." Towns, villages, and populous localities having a community of interests form, so far as practicable, single school districts.

The school affairs of each district are managed by a board of trustees. In the villages and rural districts the board comprises three trustees elected by the resident taxpayers. In cities and incorporated towns the members of the school board are appointed for a term of three years, part by the governor in council and part by the city or town council. Two members of the board must be women.

Classes of schools.—The public schools are classified as common schools, superior schools, and grammar or high schools. The superior schools are common schools with advanced classes; the law authorizes one such school to every 6,000 inhabitants; the grammar schools are county high schools and, like the high schools of the cities, are essentially secondary schools.

Sources of income.—The funds for the support of the schools are derived from the provincial grant, the county school fund, and the district assessment.

Each teacher is paid from the provincial treasury a fixed amount per school year. This allowance depends partly on the class of license held by the teacher and partly on the grade of school in which he is employed and his position therein.

The allowances given to teachers in the ordinary schools during recent years have been approximately as follows:

Male teachers:	
First class	$135
Second class	108
Third class	81
Female teachers:	
First class	100
Second class	81
Third class	63

The allowance to teachers in poor districts is increased one-third. The Province also makes grants to poor districts for the erection of school buildings.

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The county school fund is provided for by an annual assessment upon the county sufficient to yield a sum equal to 30 cents per head of the population. It is distributed among the school districts of the county, in part according to the number of teachers employed and in part in proportion to the average attendance at school. This money must be applied by the trustees in payment of the salaries of teachers. * * *

The local assessment in every district is applied in support of the schools of the district, in payment of teachers' salaries, partly in defraying the cost of school buildings, furniture, apparatus, repairs, fuel, and other necessary expenses.

Training of teachers.—Every teacher in the public schools must obtain some professional training at a recognized training or normal school before receiving a permanent license.

The superintendent of education complains of the scarcity of competent teachers, and discusses the causes of this evil in his latest official report (1901) as follows:

By reference to the normal school report it will be seen that the average enrollment of candidates for the teaching profession during the last ten years was 273; but as a portion of those enrolled were already licensed teachers who were seeking advance of class, it may be estimated that from 240 to 250 new candidates present themselves each year. This number would provide for vacancies caused by the annual withdrawal of about one-eighth of the total number of teachers employed, and this proportion, under ordinary circumstances, ought to be sufficient to meet the requirements of the schools.

But under existing conditions a much larger proportion than 12½ per cent of trained teachers of the higher classes seek and obtain other employment. There are now many more avenues of activity than formerly opening up before educated and energetic young people of both sexes, and these new fields of usefulness give promise of much better financial rewards and their cultivation is attended with less nervous strain and self-denial than are usually associated with the charge of a country school. The inevitable results are the withdrawal annually from the teaching profession of hundreds of our best qualified teachers and the consequent closing of the schools or, what is scarcely a less evil, placing them in charge of teachers of imperfect education and utterly incompetent for the proper discharge of the functions of a teacher.

The time has come when some remedy must be found for this growing evil; otherwise every effort which has been made to raise the standards of efficiency in the schools by supplying them with a better-educated and better-trained class of teachers will be rendered abortive. A young man or woman who has spent years in acquiring the necessary education, who has undergone professional training and successfully passed the prescribed examinations, has a right to claim a reasonably remunerative salary from some source. If the public revenues are too limited to admit of increased provincial grants, and if no further assistance can be expected by the augmentation of the county fund, then I respectfully submit that by legal enactment the school districts, in proportion to their taxable valuation, should be required to contribute an amount which, when added to the provincial grant, will make up salaries sufficient to command the services of properly educated and well-qualified teachers.

In my last annual report I gave a list of twenty school districts having a taxable valuation ranging from $409,350 to $55,000, in which the highest sum contributed by the district toward the teacher's salary was $185 and the lowest $85. These were all comparatively wealthy districts. In the poor districts, so called, the

regular provincial grants to the teachers and the county fund grants to the trustees are increased from 25 to 33⅓ per cent. Even with this help it is not reasonable to expect that large salaries can be given in such districts, but they should be required to contribute according to their ability, for it is demoralizing to permit even the poorest of districts to become possessed of the idea that they need incur no financial responsibility for the support of a school in their midst. The mimimum sum they should be required to contribute toward the teacher's salary should equal the provincial grant. Cases have come under my notice during the present year in which the teachers accepted as salary the provincial grant only, and the amount of the county fund was more than sufficient to pay all other expenses, as fuel, etc., so that in these cases the schools, instead of being a financial charge upon the districts, were actually a source of income.

It might be supposed that authority had been invested in the board of education, or in the chief superintendent, to warrant the withholding of the provincial grant and the county fund in such cases, but this is not the fact. Under section 23 of the schools act, the districts are not required to provide more than may be found necessary "in further payment of teachers' salaries, over and above the sums provided by the province and county, and any sum required for other school purposes during the year." The amount, if any, voted at the annual school meetings is absolutely within the control of the majority of ratepayers present. The employment of the teacher and the amount of salary contributed by the district is determined by the local school board, and it often happens that a majority of the school board have no other interest in the school than to protect themselves and fellow-ratepayers from taxation. The results are in many cases what might be expected when the educational interests of the community are left without limitation in the hands of ignorant and narrow-minded men, who have no proper conception of the importance of the trust committed to their charge. When obliged to open the school, they employ the person who will accept the position at the lowest figure without regard to any other consideration.

In order to protect the higher class teachers from competition as to salary with teachers holding a third-class or a local license, the board of education some years ago passed the following regulation:

"Third-class teachers shall not be employed (except as class-room assistants) in districts having an assessable valuation of $15,000 or upward, unless by the written consent of the chief superintendent."

In the exercise of the discretion thus given him, the chief superintendent has granted permission for the employment of third-class or local licensed teachers in such districts only on the recommendation of the inspectors, and when assured that the closing of the schools indefinitely was the alternative. And yet in the majority of cases in which trustees have applied for such permission there is strong ground for the belief that teachers of the second class could have been obtained if a reasonable salary had been offered and proper efforts had been made at or before the beginning of the term.

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The only effectual remedy for the evils I have pointed out is to provide in some way for an adequate system of salaries, graded according to the class, experience, ability, and length of service of the teacher. In order to aid in providing adequate salaries, county school districts should be consolidated wherever possible, provision should be made for taking the children to a central school, and all school districts, large or small, should be required to contribute for educational purposes not less than 50 cents on every hundred dollars of the taxable valuation. Some of the poorer districts contribute double that amount at present.

By reference to the tabulated statistics it will be seen that the average salary of the 24 first-class male teachers employed during the term ending June 30, 1901, was $520.10, an increase of $56.79 on the previous year, and that the average salary of the 305 first-class female teachers employed during the same term was $312.69, an increase of $5.88 on the previous year. The increase in these averages results from the smaller number of these classes employed, and the fact that a larger proportion than formerly are employed in the graded schools of cities and towns.

The average salaries of teachers of the second and third classes show a small decrease, with one exception.

In an address upon the public school system of New Brunswick, before the Dominion Educational Association, the delegate[a] from the normal school at

[a] John Brittain, esq. See report of the fourth convention of the Dominion Educational Association (1901), p. 141.

Fredericton, New Brunswick, dwelt upon the progress of the high schools under the administration of the present chief superintendent of education, Dr. Inch. The high schools, he said, have made very satisfactory progress. New high school buildings, commodious and well furnished, have been erected in the cities and principal towns, the provincial grants to high-school teachers have been extended, the staff of teachers has been greatly strengthened, and the attendance has increased rapidly. The high schools are free to all candidates resident in the municipalities who pass the entrance examination.

At the apex of the system of public schools is the provincial university at Fredericton, which receives an annual grant from the legislature. The fees are quite low and are remitted altogether in the case of the winners of county scholarships. Many of the young men and some of the young women who take the normal-school course afterwards attend the university, and, after graduation, teach in the high and superior schools.

New Brunswick educational statistics, 1881–1901.

Year.	Schools.	Teachers and assistants.	Pupils.	Boys.	Girls.	Average attendance.	Proportion of population at school.
1880–81	1,297	1,356	49,550	27,195	22,355	29,203	1 in 5.77
1885	1,441	1,509	52,753	26,991	25,762	31,245	1 in 6.44
1890	1,557	1,641	55,622	27,964	27,655	33,542	1 in 5.78
1895	1,695	1,790	62,518	32,659	29,859	38,447	1 in 5.13
1898	1,797	1,882	59,457	26,762	29,695	38,978	1 in 5.40
1899	1,815	1,893	58,925	29,459	29,466	39,052	1 in 5.45
1900	1,812	1,893	57,629	28,435	29,194	37,160	1 in 5.57
1901	1,741	1,841	60,420	30,870	29,550	37,717	1 in 5.31

GRAMMAR SCHOOLS.

Year.	Teachers and assistants.	Pupils.	Average attendance.
1879–1880	58	712	548
1885	55	754	448
1890	62	650	465
1895	66	695	546
1900	35	1,016	.....
1901	34	949	.....

FINANCES.

Year.	Receipts.				Expenditure.
	Government grant.	Municipal aid.	District assessment.	Total.	
1880	$147,160	$83,931	.....	.....	.....
1885	112,341	63,005	.....	.....	.....
1890	157,082	94,505	$183,636	$435,203	$415,551
1895	180,269	92,140	187,161	459,570	436,618
1898	188,104	90,807	230,000	508,911	483,829
1899	193,730	90,857	318,373	602,960	577,219
1900	194,112	90,361	346,899	631,372	605,485
1901	190,100	90,492	346,623	627,215	600,340

MANITOBA.

The present school system of Manitoba was preceded by a system of separate schools for Roman Catholic and for Protestant children, the general administration of the schools being intrusted (law of 1871) to a board of education composed of an equal number of Protestant and of Catholic members. These provisions were

abrogated by the educational laws of 1890. The first of these laws, the "education department act," constituted the executive council of Manitoba, or a committee of the same, an education department with extensive authority in respect to public schools; and a second law of the same year, known as the "public schools act," provided for a uniform system of nonsectarian schools and prohibited the use of public funds for denominational schools.[a]

The education department has authority to appoint inspectors for public schools, teachers in provincial, normal, and model schools, and directors of teachers' institutes, and to fix the salaries for the teachers and school officials; to provide for the establishment of schools, elementary, normal, intermediate, and collegiate; to arrange for the examination of teachers and the issue of teachers' certificates, and to prescribe the number of school days and the length of vacations in each school year.

The law creating the department of education provided also for an advisory board to consist of seven members, four of whom should be appointed by the department for a term of two years; two should be annually elected by the teachers of the public schools (high and elementary) actually engaged in teaching, and the seventh member appointed by the university council. The duties of this advisory body have reference mainly to the internal affairs of the schools, the authorization of text-books, the qualification of teachers, the standard of admission to high schools, etc. In particular, the board advises as to forms of religious exercises to be used in the public schools.

The inspectors appointed by the education department, besides the usual duties of school inspection, act as arbitrators in disputes between school trustees and taxpayers with regard to school sites, and between school districts with regard to the adjustment of boundaries, etc. In unorganized districts, the inspector is authorized to revise or correct the assessment roll. The inspectors are also authorized to suspend any teacher who neglects or refuses to carry out the agreement made with a board of trustees. All cases of suspension must be immediately reported to the education department.

The second law of 1890, the "public schools act," provides "for the formation, alteration, and union of school districts in rural municipalities, and in cities, towns, and villages" and for the election of trustees in each district for the maintenance and control of the schools. The law enacts that—

> All public schools shall be free schools, and every person in rural municipalities between the age of 5 and 16 years and in cities, towns, and villages between the age of 6 and 16 shall have the right to attend some school.

The following sections determine the extent and character of religious exercises permissible in public schools:

> SEC. 6. Religious exercises in public schools shall be conducted according to the regulations of the advisory board. The time for such religious exercises shall be just before the closing hour in the afternoon. In case the parent or guardian of any pupil notifies the teacher that he does not wish such pupil to attend such religious exercises, then such pupil shall be dismissed before such religious exercises take place.
>
> SEC. 7. Religious exercises shall be held in a public school entirely at the option of the school trustees for the district, and upon receiving written authority from the trustees it shall be the duty of the teacher to hold such religious exercises.
>
> SEC. 8. The public schools shall be entirely nonsectarian, and no religious exercises shall be allowed therein except as above provided.

[a] The bitter controversy to which this law gave rise, the appeal to the Dominion government, and subsequently to the English privy council, for its repeal, and the action growing out of this appeal are described in full in the Commissioner's Reports for 1894-95 (Vol. I, Chap. VII) and 1897-98 (Vol. I, Chap. IV).

Local authorities.—The local school authorities are elected trustees in rural districts and in villages and towns not divided into wards, and school boards in cities and in larger towns comprising two trustees elected from each ward. These trustees are responsible for the establishment and maintenance of public schools in accordance with the requirement of the school law.

Classes of schools.—Elementary and intermediate and high schools are maintained, and the latter may be developed into collegiate institutions preparing students for matriculation at the university. Trustees are also authorized to establish kindergartens for children between the ages of 3 and 6 years where admissible.

School income.—The income of the public schools is derived from provincial grants, amounting in 1901 to $113,452, and district assessments, amounting the same year to $653,359. The district assessment comprises a fixed rate per teacher employed and a variable rate dependent on the amount of current expenditures. The former is fixed at $20 per teacher employed for each month the school is kept open (two hundred and four teaching days constitute a full school year).

Beyond this fixed grant the school law enacts that the council of every rural municipality [a] and the municipal council of every city, town, or village shall levy and collect such sums as may be required by the public-school trustees for school purposes.

Teachers.—All teachers employed in the public schools must be provided with a certificate granted by the advisory board of education upon the results of an examination. The teachers' certificates are of three grades. The first and second grade certificates are valid during the pleasure of the board; the third class for three years.

The advisory board may grant nonprofessional certificates to university graduates. These certificates exempt the holder from the academic portion of the examinations for teachers, but they must obtain professional certificates by proof of attainments in the theory and art of teaching before being appointed to teach in a public school of the Province.

Provision for the professional training of teachers is made by the provincial normal school, which is supported by a legislative grant, and also by teachers' institutes, which are held in each inspectorial division under the auspices of the inspector.

The public schools are affiliated to the university through the provision for raising a high school to the rank of a collegiate institute. Three high schools have already reached this standard.

The provincial university, incorporated in 1879, completes the educational system of the Province. The university was constituted as an examining body on the model of the old London University. But certain teaching institutions are affiliated to the university and have a representation in its council.

Educational statistics of Manitoba, 1885–1901.

Year	Schools.	Teachers.	Pupils.	Average attendance.
1885	390	476	13,074	7,847
1890	627	840	23,256	11,627
1895	982	1,093	35,371	19,516
1900	1,352	1,596	50,460	27,870
1901	1,416	1,769	51,888	27,550

[a] See p. 424.

Receipts and expenditures, Manitoba.

Year.	Receipts.			Expenditures.			
	Government grant.	Municipal taxes.	Total.	Teachers' salaries.	Buildings, furniture, etc.	Fuel, repairs, etc.	Total.
1885	$40,916	$195,640	$338,996	$150,759	$50,393	.....	$320,899
1890	99,258	255,089	426,705	200,929	61,096	$29,163	338,981
1895	129,099	481,828	892,056	378,656	118,519	62,314	797,542
1900	172,339	645,383	1,229,878	561,091	113,010	97,457	1,179,416
1901	[a]113,452	653,359	1,310,805	582,325	148,987	101,762	1,272,617

[a] Incomplete; all returns not in.

BRITISH COLUMBIA.

The public schools of British Columbia are free, nonsectarian, and supported entirely by provincial grants, excepting the schools of incorporated cities and towns (at present four in number—Nanaimo, New Westminster, Vancouver, and Victoria). The members of the provincial executive council constitute a council of public instruction; the chief officer of education and ex-officio secretary of the council is the superintendent, appointed by the lieutenant-governor with the concurrence of the council. The council has power under the school law—

to create school districts, which must, however, in each case include not less than 20 children of school age (that is, between 6 and 16); * * * to set apart in every school district such a quantity of the waste lands of the Crown as in the opinion of the council may be necessary for school purposes in the district; * * * with the sanction of the lieutenant-governor, to grant, on the application of the school trustees of any school district, such moneys as may be required to pay the salary of the teacher in such school district; in rural districts to defray the cost of erecting a schoolhouse or providing a house or room within which the public school of such district may be held, the cost of all furniture and apparatus necessary for the use of any school, and the current expenses connected therewith; * * * to appoint two or more examiners, who, with the superintendent, constitute a board of examiners to examine teachers and grant certificates of qualification; to appoint inspectors to visit the public schools and report to the superintendent of education as to their condition and progress, and, in general, to make all rules and regulations for the conduct of the public schools.

The council is also empowered:

To establish a normal school, with model or practice departments, and to establish a high school or collegiate institute in any school district where it may be expedient so to do, wherein the higher branches may be taught, and every such high school or collegiate institute shall be under the control of the local board of trustees for the district within which such high school or collegiate institute is situate: *Provided, however*, That no high school or collegiate institute shall be established in any district in which there are less than 20 persons duly qualified and available to be admitted as high-school or collegiate-institute pupils.

Each school is controlled locally by school trustees. In each rural district three school trustees are elected by the people. City school districts are of three classes. The first class includes "all incorporated cities and towns wherein the average actual daily attendance of pupils attending public schools equals or exceeds 1,000 for the school year;" the second class includes "all incorporated cities and towns wherein the average actual daily attendance of pupils attending public schools falls below 250, but does not exceed 999 for the school year;" the third class "includes all incorporated cities and towns wherein the average actual daily attendance of pupils attending public schools falls below 250 for the school year."

Each city school district elects a board of trustees comprising seven members for cities of the first class, five members for cities of the second class, and three members for cities of the third class.

In all incorporated cities and towns the salaries of the teachers employed in the public schools are fixed and paid at the discretion—

of the school trustees of the said cities and towns, respectively, and such salaries and all other expenses for the purchase and lease of school sites, erection, enlargement, or rent of school buildings, for furniture and repairs, and all other incidental expenses whatsoever incurred by the board of trustees in the respective cities and towns are borne and paid by the municipal corporations of the said cities and towns, respectively.

Incorporated cities and towns provide the funds for the public schools within their borders, but "a per capita grant of $13 for cities of the first class, $15 for cities of the second class, and $20 for cities and towns of the third class per annum, based on the average actual daily attendance of the public school pupils," is allowed from the provincial treasury.

Cities in which a high school is in operation receive also from the provincial treasury the additional sum of $300 for "each high-school teacher employed during the entire school year (or proportionately for the number of months such teachers have been respectively employed): *Provided*, Such high-school building and its equipment be satisfactory to the council of public instruction."

The public schools are classified as common or ungraded schools (i. e., rural schools), graded schools (in cities and towns), and high schools.

From the foregoing outline of the system of public instruction it will be seen that the law has been framed to meet the exigencies of a new country, and at the same time to impose due responsibility upon settled prosperous communities.

The execution of the school law is naturally attended with peculiar difficulties in the remote and sparsely settled districts, but there are not wanting signs of vigorous growth, especially in the cities and incorporated towns.

The following statistics show the present status of the schools in comparison with earlier conditions:

Educational statistics of British Columbia, 1878–1901.

COMMON SCHOOLS (RURAL DISTRICTS).

Year.	Schools.	Teachers and assistants.	Pupils.	Boys.	Girls.	Average attendance.
1878	50	56	2,137	1,195	942	1,345
1888	83	83	2,542	1,373	1,169	1,309
1898	238	241	7,177	3,732	3,445	4,075
1899	244	249	7,430	3,860	3,570	4,290
1900	246	246	7,165	3,740	3,416	4,133
1901	258	258	7,571	3,930	3,641	4,340

GRADED SCHOOLS (CITIES).

1888	13	37	3,657	1,954	1,683	1,678
1898	29	169	10,012	5,073	4,939	6,704
1899	32	[a]	11,295	5,761	5,504	7,722
1900	48	235	13,813	7,115	6,698	9,184
1901	55	270	15,460	7,924	7,536	10,022

HIGH SCHOOLS.

1878	1	2	61	47	14	50
1888	3	4	193	78	115	106
1898	4	12	459	178	281	276
1899	4	12	490	185	305	302
1900	4	13	553	212	341	350
1901	5	15	584	215	369	372

[a] Included in common schools.

Educational statistics of British Columbia, 1878–1901.—Continued.

EXPENDITURE.

Year.	Expenditure by cities.	Total expenditure by Government.
1878	.....	$48,411
1888	.....	113,679
1898	$48,486	290,255
1899	50,091	336,016
1900	81,888	308,889
1901	182,160	351,852

PRINCE EDWARD ISLAND.

By the school law of 1877 public education in Prince Edward Island was placed under the control of a board of education composed of the members of the executive council, the chief superintendent of education, the principal of the college and normal school, and two inspectors. The interests of the public schools are thus thoroughly represented in the board. For the local control of the schools the Province is divided into school districts in charge of trustees annually elected by the taxpayers of the respective districts. The schools are supported by provincial grant, which yields about 78 per cent of the income, and district assessments, which provide the remaining 22 per cent.

Educational statistics of Prince Edward Island, 1890–1901.

Year.	School departments in operation.	Teachers.	Pupils enrolled.	Average attendance.	Percentage of attendance.	Expenditure.		
						Government.	School board.	Total.
1890	529	529	22,530	12,490	55.43	$113,636	$37,610	$151,236
1895	561	550	22,250	13,250	59.56	121,781	39,426	161,201
1900	586	586	21,289	13,167	61.86	129,113	34,054	163,167
1901	589	589	20,779	12,330	59.34	128,288	36,647	164,935

NORTHWEST TERRITORIES.

The system of public schools in the Northwest Territories is under the control of a council of public instruction comprising 4 members of the executive committee and 4 appointed members, of whom 2 must be Protestants and 2 Roman Catholics. The appointed members have no vote, their duties being purely advisory. A school district must not exceed in area 25 square miles, and must contain not less than 4 resident taxpayers (property tax) and at least 12 children of school age. Each district elects school trustees, who manage the local school affairs.

The support of the schools is derived from the provincial grant and local taxes. The former is distributed among the schools on the basis of (1) average attendance, at the rate of $1.50 per capita; (2) number of days in session, at the rate of $1.40 a day for a term not to exceed two hundred and ten days; (3) the graded certificate held by the teacher, 10 or 20 cents a day for an annual term of two hundred and ten days, and (4) the grade assigned to the school on the report of the government inspector, at not less than 5 cents nor more than 15 cents a day for an annual session not exceeding two hundred and ten days.

Educational statistics of Northwest Territories, 1890–1901.

Year.	Schools in operation.	Teachers employed.	Pupils enrolled.	Expenditure by legislative assembly.
1890	195	224	5,398	$85,008
1895	341	401	11,972	112,183
1900	492	592	20,343	168,322
1901	562	679	23,687	102,215

The higher educational institutions of Canada.

[From Statistical Year Book of Canada, 1901]

Name.	Date of foundation.	Endowment.	Value of property owned.	Income.	Students (about).
Universities.					
University of King's College, Windsor, Nova Scotia	1790	$155,000	$250,000	$9,000	24
University of New Brunswick, Fredericton, New Brunwick	1800	[a] 8,844		12,000	80
McGill University, Montreal, Quebec	1821	2,977,000	2,026,804	903,000	1,114
Dalhousie College and University, Halifax, Nova Scotia	1821	340,000	80,000	22,700	340
University of Ontario, Toronto, Ontario	1827	1,187,683	1,457,339	119,087	1,322
University of Acadia College, Wolfville, Nova Scotia	1838	155,000	120,000	12,000	142
University of Queen's College, Kingston, Ontario	1841	400,000	125,000	46,400	635
University of Bishop's College, Lennoxville, Quebec	1843	190,300	157,000	21,150	221
University of Ottawa, Ottawa, Ontario	1848	None.	235,000	30,000	475
University of Trinity College, Toronto	1852	750,000	325,000	35,000	350
Laval University, Quebec [b]	1852	None.	1,000,000	None.	[c] 1,077
University of Mount Allison College, New Brunswick	1862	117,500	120,000	22,500	175
University of Manitoba, Winnipeg	1877	[d] 150,000	600,000	5,500	135
Victoria University, Toronto, Ontario	1836	280,000	320,000	26,000	234
University of St. Francis-Xavier College, Antigonish, Nova Scotia	1853	50,000	100,000	11,000	122
McMaster University, Toronto, Ontario	1887				134
University of St. Joseph's College, Memramcook, New Brunswick	1864	None.	50,000		165
Colleges.					
St. Michael's College, Toronto, Ontario	1852	None.	200,000	15,000	150
Knox College, Toronto, Ontario	1544	270,000	200,000	18,000	119
Assumption College, Sandwich, Ontario	1854		110,000	25,000	175
Presbyterian College, Montreal, Quebec	1867	215,000	160,000	16,000	55
Presbyterian College, Winnipeg, Manitoba	1870	15,000	50,000	23,000	170
Presbyterian College, Halifax, Nova Scotia	1820	120,000			24
Wesleyan College, Montreal	1873	50,000	60,000	6,000	71
Methodist College, Winnipeg, Manitoba	1888				
St. John's College, Winnipeg, Manitoba			60,000		
St. Boniface College, Winnipeg, Manitoba	1820		50,000	12,000	105
Woodstock College, Woodstock, Ontario	1860	160,000	200,000	25,000	120
Wycliffe College, Toronto, Ontario		63,200	65,000	10,000	40
Albert College, Belleville, Ontario	1757		75,000		250
Stanstead Wesleyan College, Stanstead, Quebec	1872	75,000	20,000	10,000	149
St. Francis College, Richmond, Ontario	1854	15,000	2,000	3,000	110
St. Anne College, Church Point, Nova Scotia	1890				34
Halifax Ladies' College and Conservatory of Music, Halifax, Nova Scotia	1887		90,000	26,000	445
Church School for Girls, Windsor, Nova Scotia					75
Acadia Seminary, Wolfville, Nova Scotia					49
St. Jerome's, Berlin, Ontario		None.	40,000	6,000	100
Classical colleges—Quebec. [e]					
Chicoutimi	1873	83,500	76,000		223
Joliette	1846	150,000	130,450		329

[a] Government grant.
[b] Quebec Seminary (ecclesiastical organization) defrays all expenses.
[c] The Quebec branch has 358 students; the remainder are connected with the Montreal branch.
[d] Acres of land.
[e] The classical colleges in Quebec are a combination of school and college, attended by both boys and young men. They confer certain degrees, and are mostly affiliated with Laval University. It not being possible to separate them, the pupils in these colleges are counted twice over, viz, in this table and in the one in the preceding table.

The higher educational institutions of Canada—Continued.

Name.	Date of foundation.	Endowment.	Value of property owned.	Income.	Students (about).
Classical colleges—Quebec—Continued.					
L'Assomption	1832	$145,000	$135,000	.....	290
Lévis	1853	271,100	269,000	.....	522
Montreal (Loyola)	1897	108,600	60,000	.....	168
Montreal (St. Mary's)	1848	445,000	367,000	.....	325
Montreal (St. Sulpice)	1767	.....	.....	.....	465
Nicolet	1803	266,000	260,000	.....	305
Quebec (Seminary)	1665	.....	.....	.....	554
Rigaud	1850	87,500	87,000	.....	310
Rimouski	1867	58,500	57,000	.....	113
St. Anne de la Pocatière	1829	180,000	180,000	.....	299
St. Hyacinthe	1809	180,000	175,000	.....	313
St. Laurent	1847	200,000	195,000	.....	525
Ste. Marie de Monnoir	1853	68,500	62,100	.....	240
Ste. Thérèse	1825	101,670	102,000	.....	350
Sherbrooke	1875	220,000	69,000	.....	243
Three Rivers	1860	98,500	98,500	.....	259
Valleyfield	1893	123,864	118,720	.....	82
Ladies' colleges.					
Wesleyan Ladies' College, Hamilton, Ontario	1860	.....	80,000	$17,000	144
Hellmuth Ladies' College, London, Ontario	1869	.....	80,000	30,000	100
Brantford Ladies' College, Brantford, Ontario	1874	.....	60,000	20,000	70 to 140
Ontario Ladies' College, Whitby, Ontario	1874	.....	100,000	22,000	150
Demill Ladies' College, Oshawa, Ontario	1876	.....	55,000	14,000	138
Alma Ladies' College, St. Thomas, Ontario	1881	.....	90,000	25,000	170
Mount Allison Ladies' College, Sackville, New Brunswick	1854	.....	121,000	.....	195
Ottawa Ladies' College	1872	.....	50,000	15,500	146
Academies.					
Mount Allison, Sackville, New Brunswick	1843	.....	32,000	.....	89
Agricultural colleges, etc.					
Ontario Agricultural College, Guelph, Ontario	1874	.....	340,900	[a] 18,564	135
Provincial School of Agriculture, Truro, Nova Scotia	1885	.....	.....	[a] 1,967	48
School of Practical Science, Toronto, Ontario	1877	[b] 8,800	.....	.....	71
School of Agriculture, L'Assomption, Quebec	.....	.....	.....	4,500	24
School of Ste. Anne de la Pocatière, Quebec	1859	.....	.....	4,000	12

[a] Government expenditure. [b] Government grant.

EDUCATIONAL SYSTEM IN NEWFOUNDLAND.

The following account of the system of education in Newfoundland is cited from an article by Mr. George Milligan, M. A., LL. D., superintendent of Methodist schools.[a]

The present educational system of Newfoundland was fully introduced by education acts 1874 and 1876, which rendered it completely denominational, and provided for separate denominational schools, which, however, should be public schools, and restricted in their operation by a conscience clause. Both Roman Catholics and Episcopalians had declared in favor of subdivision, and Methodists somewhat reluctantly complied with their arrangement, as justice was done to all religious bodies by giving to all alike education grants per capita. By the 1874 act $40,000 were provided for schoolhouses and school property and arrangements made for subdivision of property on an equitable basis, which was in due course accomplished without difficulty. By the 1876 act $88,251.92 were provided for all purposes, which amount has been increased from time to time according to increase in population, etc., till it has reached a total of $149,585.19 per year, besides $4,000 for purposes of the council of higher education.

These grants provide $90,251.65 for general purposes, $4,000 to aid poor districts, $5,297.57 to encourage on certain conditions, involving hearty cooperation, the maintenance of superior schools, $9,565.29 to sustain colleges, $25,297.87 for the

[a] Published in volume 4 of the Special Reports on Education, issued by the Board of Education, England.

encouragement of teachers and supplementing salaries, according to character and certificate of grade, and $4,860 for the salaries, traveling and other expenses of three superintendents.

The chief and central authority is vested in His Majesty's Government. The governor in council has power to appoint in each educational district, as defined in the act, a board of five or seven members of the respective denominations, on which the senior of superior clergymen resident or officiating in the district shall be one, to manage and expend all moneys, etc. Such boards in St. Johns, and in districts in which are superior schools, may consist of nine members. Vacancies occurring by death, resignation, or absence from the colony for twelve months may be filled by the governor in council. The annual meeting of every board shall be held on the first Wednesday of July, or as soon as practicable thereafter, when a chairman and other officers shall be elected, accounts submitted and audited, and other business transacted which may be necessary, and correct returns transmitted to the superintendent, according to form of schools prescribed. For public schools there are 152 education boards, of which Methodists have 61. Similar boards are appointed in like manner for the four colleges, but nomination of members is with the respective denominations.

There were 591 schools in 1896, 33,742 pupils, or an attendance of 16.81 per cent of total population. In 1897, in Methodist public schools there were 4,695 boys and 4,118 girls; total, 8,813. In Methodist colleges there were 260 pupils, 137 males and 123 females. Attendance as yet is voluntary, but as the result of a growing interest in education it is steadily increasing.

In 1896 the cost of each pupil to government was $3.64 on cost, an average for all denominations. In 1897 Methodist boards returned fees $5,374.98, and voluntary contributions toward current expenses, $614.66. Methodist College Board returned fees, $4,700.73.

In public schools classes are conducted in six standards, in reading, writing, arithmetic, geography, grammar and composition, history, bookkeeping, mensuration, geometry, navigation, algebra, drawing, needlework, and vocal music. Singing and drawing are taught in many Methodist schools and domestic economy in a few of them.

Methodist schools are opened by singing a hymn, reading the Scriptures, and prayer daily. This constitutes usually the amount of religious instruction, which, however, in no case contradicts the conscience clause.

Teachers are appointed by education boards, must be engaged according to prescribed form, and must have three months' notice in writing in case of dismissal, but may be dismissed summarily for immorality. They must hold certificates of qualification from boards of examiners, of third, second, or first, or associate grade, and faithfully discharge duties distinctly defined in education act.

Public teachers are regularly indentured to the superintendents of education for one, two, or three years and must attend certain recognized institutions. The Methodist College, with its primary and model school, serves as training and practicing school for regular or special pupil teachers. Of total grants before mentioned, $5,610.84 are appropriated for training teachers, of which the Methodist share is $1,489.76 per year. The maximum amount annually paid toward the board, lodging, and training of any male-pupil teacher, per act, is $100, and of females the maximum is $80. By special arrangement with the college executive and the payment of $400 annually, provided under the education act, reduced rates of cost are made applicable to Methodist pupil teachers in the college home, under the guardianship of the reverend chaplain and guardian. Selection, oversight, and gradation of pupil teachers is conducted by board of examiners for the denomination, and upon the completion of term of training such persons are required, under a penalty of $400, to serve as teacher in a public school for three years, or if their course of training has extended over two years one and one-half times as long as the term of training.

Certificated teachers may be admitted to a second course of training for a period not exceeding twelve months provided they serve as teachers in a public school for at least eighteen months, under a penalty of $200 in case of breach of said contract. During 1897 there were 25 regular pupil teachers and 4 special admitted for training to prepare them for teaching in Methodist public schools.

In 1897 61 teachers in Methodist schools were males and 119 females, and of pupils teachers in college, 14 were males and 15 were females.

(*b*) *Higher education.*—In the colleges provision is made for teaching advanced classes in ordinary commercial subjects, in Latin, Greek, French, German, algebra, geometry, mensuration and land surveying, chemistry, magnetism and electricity, free-hand and geometrical drawing, trigonometry and navigation, shorthand,

music, and school management. These colleges are all under Government inspection, and reports of their condition and progress and a detailed account of income and expenditure must be transmitted to their respective superintendents to be laid before the legislature, in accordance with prescribed forms.

The Methodist college had for its principal a B. A. F. S. S. (London), who has 5 well-qualified assistants in the upper school, besides 2 highly accomplished professors—1 of music and 1 of drawing and painting. It has also in the model school 4 other certificated teachers from kindergarten upward.

The Methodist college has a new and valuable property which has cost about $80,000 and by the hearty contributions of its friends liabilities amounting to nearly $50,000 are being, by voluntary efforts, regularly and steadily reduced. Current income for 1897, comprising grants and fees, was $8,477.61: and expenditure for salaries and current expenses was $7,697.83. Besides 260 reported as above in upper school, there were 200 pupils in model school, or a total of 460 under instruction during the past year.

This body represents the denominations and secures the combined thought and action of 23 members appointed by His Majesty's Government, including 3 superintendents of education and the 4 principals of colleges, ex officio. Its chief object is to promote education by holding examinations by a competent and independent board of examiners outside the colony and to awaken honorable competition in the schools of Newfoundland, by awarding diplomas, prizes, and scholarships to successful candidates. In my judgment, despite certain drawbacks in the way of its success, the council of higher education has a healthful influence upon public education. It gives diplomas for junior, senior, and associate grades. In June last pupils in Methodist college won 56 junior, 40 senior, and 5 associate, and in 27 Methodist public schools 92 junior, 28 senior, and 1 associate, making a total of 222 diplomas.

GEORGE MILLIGAN, M. A., LL. D.,
Superintendent of Methodist Schools

ST. JOHNS, *March 22, 1898.*

The following statistics from the latest official reports bring the record of the public schools under the Church of England and Methodist boards and the Roman Catholic schools to December 31, 1901:

Schools.	Schools and colleges.	Teachers.	Enrolled pupils.	Total expenditures.	Government expenditure per pupil.
Church of England boards	[a] 254	249	13,608	[b] $34,240	$3.82
Methodist boards	[c] 216	219	10,813	[d] 42,370	3.67
Roman Catholic schools	[e] 157	.....	9,244	[f] 54,541	5.90

[a] Including 2 colleges.
[b] Excluding colleges.
[c] Including 1 college.
[d] For teachers' salaries.
[e] Includes 137 public or board schools, 15 convent schools, 2 schools under the Christian Brothers, 2 academies, and 1 college.
[f] Grant for education.

CHAPTER IX.

EDUCATION IN THE BRITISH SOUTH AFRICAN COLONIES.

Cape Colony.—The British possessions in South Africa include the Cape Colony or Cape of Good Hope, washed by the Atlantic and Indian oceans on the west and south and southeast and bounded upon the north and northeast by the German protectorate, the British protectorate of Bechuanaland, and the Orange River and Natal colonies. It covers an area of 221,311 square miles and contained, in 1891, a population of 1,527,224 (376,987 white, 1,150,237 colored).

The colony was in possession of the British in 1806, but was not formally ceded by the Dutch Government to Great Britain until 1814. During the Dutch occupancy (1652–1806) church schools had been established in several places and attempts had been made to organize a system of schools under public control. After the transfer to Great Britain schools multiplied slowly through the efforts of the church or of private enterprise and were fostered by Government grants.

It was not until 1839 that the Government assumed distinct responsibility in respect to this matter by the appointment of a superintendent-general of education for the colony. At the same time the outline of the proposed system of schools was made public. This system had been developed in advice with the astronomer, Sir John Herschel, who was temporarily residing in the colony and had manifested deep interest in its moral and intellectual improvement.

The characteristic feature of the system thus initiated was that of Government aid and Government supervision for schools established, and in part maintained, by local efforts either of citizens or of churches. The existing system of education in the colony has been a gradual development from these early beginnings.

With the extension of the work there has come the necessity of a more definite organization of the controlling authorities, central and local, and this has been accomplished so far as circumstances have permitted after the precedent of the English system.

The central authority for education in Cape Colony is the department of public education, whose office is situated in Cape Town. The colonial secretary is the chief of the department, but for all practical purposes the superintendent-general of education administers the system. He is required to make an annual report, which has for some years followed the same arrangement. He reports on the working of the administration, the supply of schools, the enrollment and attendance, the progress of the pupils, school curricula, subjects of instruction, training of teachers, etc.

The schools that are recognized by the department of education may be schools under denominational management or undenominational public schools. The latter are in charge of managers elected by the householders of the community, who subscribe to a guaranty fee for half the expense of the school. In case the Government approves of the persons thus elected they become the local board in charge of the school. The Government on its part agrees to allow a grant sufficient for half the expenses of the school for three years. At the end of this period the grant is not renewed unless the report of the superintendent-general as to

the equipment and efficiency of the school is satisfactory. Fees are charged in the schools, but there is provision for remitting the same in case of necessity.

The superintendent-general is assisted by a corps of Government inspectors who examine the individual schools and also instruct the teachers in the requirements of the central department. The course of study and the conditions of efficiency necessary for securing the grant-in-aid are determined by the department.

There is provision for pensioning teachers and professors who have completed fifteen years' service under the education department and who have reached the age of 60 years or are incapacitated for service by reason of ill health.

According to the report of the superintendent-general for the year ending March 31, 1899, it appears that there were in operation 2,674 schools aided by the Government with an enrollment of 147,424 and an average daily attendance of 114,842 and employing 4,505 teachers.

The enrollment comprises 59,825 white children and 87,599 colored children, the latter in schools classified as mission schools and schools for the aborigines.

With respect to the attainments of the colored children, the superintendent-general says in his report for 1899:

For some years it has been impossible to report any rise in the learning standard of mission schools of the colony proper and the aborigines' schools of the frontier and the Transkei. It has been repeatedly pointed out in regard to them that more than half of their children are below Standard [grade] I, and that the number of their children who proceed beyond Standard IV is exceedingly small, in the mission schools not 3 in 1,000. The year under review, however, gives some ground for hope that improvement has at last begun. The change is indeed almost microscopic, but as it is manifest in all the standards above Standard II it deserves to be chronicled. The facts are that in the mission schools of the colony proper, the percentage of passes above Standard II has risen from 8.38 to 8.9, and in the aborigines' schools from 13.66 to 13.86. The only chance for continuing the progress thus begun lies in the improvement of the teachers, and this can only be done by a determined effort on the part of the churches which have organized training schools set apart for the purpose.

Higher education is also fostered by the Government, which apportions grants to six colleges. These maintain departments of classics, mathematics, and physical sciences. They registered 536 students in 1898 and 454 in 1899, a falling off attributed to the war.

The University of Cape Colony, incorporated in 1874, is merely an examining and degree-conferring body.

There is also a Government school of agriculture at Stellenbosh, which was originally under the control of the department of agriculture, but in 1898 was transferred to the department of education.

The Cape Town School of Art was established in 1880 and maintained for fifteen years under the auspices of the South African Fine Arts Association, with the help of an annual Government grant. In 1895 the school was passed over to the education department.

The Huguenot Seminary at Wellington, one of the most important private schools in the colony, also receives some aid from the public treasury. The seminary was founded through the efforts of Rev. Andrew Murray, pastor of a Dutch Reformed church, whose action was inspired by reading a life of Mary Lyon. Under the conviction that a seminary similar to that at Mount Holyoke, in this country, would be of incalculable benefit to the colony he entered into correspondence with graduates of that institution. Miss Anna E. Bliss, of Amherst, Mass., and Miss Abbie Ferguson, of New Haven, Conn., responded favorably to his appeal and money was sent from the colony for their passage to Cape Town. They found on their arrival that a large building with grounds had been bought for the school, the life of Mary Lyon had been translated into Dutch, and many young people were ready to enter as pupils into the Huguenot Seminary or as teachers to seek higher fitness for their calling. The seminary was formally

opened January 19, 1874, in the presence of a large assembly. Within the last decade the seminary has been provided with additional buildings and improved equipment, and is to-day in a flourishing condition. More than a thousand young ladies, descendants of the Dutch, French Huguenot, English, Scotch, etc., settlers, have received the benefits of the school and have gone forth to do excellent work. Many of them are teachers in the colonial schools and not a few are missionaries in the regions beyond,

The Government expenditure for education in 1899 amounted to £270,758 ($1,353,790). Of this amount £225,710 15s. ($1,128,550.75) was for the public or elementary schools.

In summing up the general conditions at the outbreak of the war, the superintendent-general in the report already cited (report for 1899, published in 1900), says:

All that can be said is that up till the outbreak new schools were being opened and school rolls were being increased at a highly satisfactory rate.

The other noteworthy features are the continued rise in the standard of attainments among the children and the continued improvement in the qualifications of the teachers; and, after all, these are the two most important points of any educational system. The steady rise in the attainments of the pupils is made at once manifest by giving the percentages of children above Standard (grade) IV for the last five consecutive years. These are 5.82, 6.68, 7.04, 7.39, 7.87. The same gradual upward movement is evidenced by the series of percentages of pupils above Standard V in the first-class schools, these percentages for the same five years being 15.0, 18.04, 19.42, 20.32, 20.98. It might reasonably be expected that with the great growth in the number of school children, many of whom entered school for the first time, the tendency would be to lower the average of attainments. The rise of standard in the face of this increase is all the more noteworthy and gratifying.

In a postscript on the effect of the war the superintendent-general continues:

The first indications of change came from the districts adjacent to the western frontier of the Transvaal, and probably the first school known to the office to be closed was one on the very border, the teacher of which having early information of invasion, locked his school door and went for safety into the land of the enemy. The railway and telegraph lines were, however, soon cut farther south, and large groups of schools were isolated in a moment. One inspector ceased suddenly to send in reports, and it was ascertained some time later that he was shut up in Kimberley. Then the northeastern frontier became affected in the same way. The December examinations were approaching, and the usual preliminary arrangements with the candidates should have been progressing. But letters and parcels of needlework failed to turn up, and one examination center after another dropped out of reach. Another inspector who had stuck doggedly to his work amid excitement and disturbance, ceased to be a correspondent, and was found to be detained in Burghersdorp. A third might have been in Colesberg, but at the time the inspectorship there was vacant.

When the school returns for the December quarter came in and began to be tabulated the loss which had been suffered grew more apparent, and the completed work showed that as many as 215 schools had dropped from the list.

Education in the Transvaal Colony.—Geographically the Transvaal Colony is land-locked with Portuguese East Africa and Cape Colony on the east, Orange River Colony and Bechuanaland on the south and west, and Rhodesia and Natal on the north.

The total area (including Swaziland, 5,560 square miles) amounts to about 120,000 square miles. The population in 1898 was stated by the Government to be over 1,000,000, of whom about 750,000 were natives, and 250,000 whites (males 138,000, females 112,000), and the number of fighting men at the commencement of the war was stated by the Government to be about 30,000. [Whitaker's Almanac, 1902.]

The Transvaal Colony, formerly known as the "South African Republic," or "The Transvaal," was annexed to the British Crown by Royal Proclamation of 25th of October, 1900.

The following survey of educational conditions in the Transvaal previous to the annexation was prepared by Mr. John Robinson, secretary to the director of the council of education, Witwatersrand, and was forwarded to this office by the education department of the colony,

The paper is evidently written from a purely English standpoint, but for this very reason it has a peculiar historic interest as disclosing something of those internal agitations that helped to precipitate the late war. The report is further interesting because it shows among the English settlers in the Transvaal that impulse to concerted civic action characteristic of the race wherever they are found.

Among an agricultural people like the Dutch colonists, the patriarchal order prevails, with little tendency to collective action. The Government of the South African Republic was not indifferent to education, but the system fostered was naturally better suited to a rural people of simple habits and humble ideals than to the more enterprising English of the mining region. The deficiency of educational provision which led to the formation of the Witwatersrand council, as described by Mr. Robinson, appears to have been due rather to the conditions of pioneer life in the particular district than to legislative neglect.

By the Uitlander education law, passed in 1896, the Government of the Republic authorized the establishment of schools in the mining region at the cost of the State with special provision for the children of foreigners. The regulations subsequently issued with respect to these schools appear, however, to have hindered the real purpose of the law; such, at least, is the inference from their tenor and from the report of Dr. Mansfelt, superintendent of schools. The statistics quoted from this report show that two years after the law was passed very few English children were benefiting from its provisions. Later statistics included in the very complete presentation of the educational system of the Republic made at the Paris Exposition (1900) showed that 12 of these special schools were in operation, with 1,500 pupils. Of the 49 teachers employed one-third were English. The Government expenditure per pupil in these schools was a little higher than in the ordinary schools.

It appears also from Mr. Robinson's account that while there was friction between the council formed by private initiative and the education department, the action of the council and its purposes were supported by many burghers who desired better school advantages for their children. A striking evidence of this cooperation is afforded by the memorial "relating to education on the gold fields of the Witwatersrand" presented to the Government by the combined action of the council and certain burghers of Johannesburg.

The memorial preceded the declaration of war by a few months, and naturally, as troubles were thickening, failed of practical results. It has, however, supplied to the present Government a comprehensive survey of the needs of this important region.

SKETCH OF THE HISTORY OF EDUCATIONAL WORK IN THE LATE SOUTH AFRICAN REPUBLIC.

EARLY LEGISLATION.

The first education law of the South African Republic was published in 1874 during the presidentship of Mr. Burgers. The law provided for three classes of schools:

1. Wijkscholen. Ward schools (a ward is a field cornet's district)
2. Distriktscholen.
3. Gymnasium (at Pretoria).

The syllabus of instruction for the Wijkscholen corresponded very nearly to that fixed at that time by the English code for elementary schools. The curric-

ulum of the district schools was slightly more extended (meer uitgebreid). In the wijk schools the State subsidy was £25 for 12 children, £50 for 25 children, with £2 additional for each child up to 100. In the district schools £300 was paid irrespective of numbers, with an additional £100 when the attendance reached 100. The law provided that: (*a*) No religious instruction was to be given during school hours; (*b*) Instruction was to be given in Dutch or English, according to the wishes of the parent or guardian.

The main defect of the law was the arrangement with regard to district schools. The population was small and scattered, and it was common to find a district school with ten or a dozen pupils costing the Government £300. In 1877, the first year of the British occupation, the average number of children in the schools was 306, and the cost to the State was £11 8s. 9d. per head per annum.

In view of the condition of the State exchequer at that time it is not surprising that the authorities took fright, and in 1880 we find the administrator, Sir Owen Lanyon, revoking law No. 4 of 1874 and confirming a new education law dealing mainly with the payment of subsidies. The terms "wijk" and "distrikt" are abolished, and schools are henceforth known as "town" and "country" schools. Schools, again, are divided into three classes, according to the attendance and the qualifications of the teachers. The State subsidies for first, second, and third class schools, respectively, were 7s., 6s., and 4s. per month. Country schools must have at least 12 pupils and town schools 20 before they can earn subsidies. Secular instruction only may be given in schools. This law was in operation until the middle of 1882, in which year there were nine town or village schools and 34 country schools, with an attendance of 872 children.

PERIOD 1882–1892.

In March, 1882, a new education law was published. In this law all local distinctions disappear. There is only one class of school recognized. Lager (lower) and middelbaar (middle) education are recognized, and the scale of subsidies range accordingly. "Lager onderwijs" corresponds roughly to standards I, II, and III in the English code and "middelbaar" corresponds to Standards IV, V, and VI. The State paid £3 for each pupil grouped under "lager" and £5 for each pupil grouped under "middelbaar" per annum. A further subsidy of £3 or £5 per annum was allowed on account of children whose parents were unable to pay fees. The law differed from previous enactments in the following important points: (*a*) School must be opened and closed by prayer. Bible history to be taught, but doctrinal instruction is to be left to the Kerkraad. (*b*) Clause 7 stipulates that instruction shall be given through the medium of the Dutch language.

So far as numbers may be taken as a criterion, education made progress under this law. In 1882 the number of children in State schools was 872, with an expenditure of £2,753. In 1891 the number was 8,170, and the cost to the State £43,823 11s. The reports during this period were carelessly compiled, but they afford sufficient data to prove that the attainments of the children were very low. A large substandard, with a few children in Standards I and II, was a common type of school. There was, moreover, no thorough system of inspection. In 1888 only 74 out of 179 schools were inspected. There is, further, evidence to show that the annual inspection when it did take place was of the most casual and superficial character. There were constant complaints in the Volksraad as to the incompetency of teachers.

In his first report to the Volksraad in 1892, Dr. Mansfelt says: "Burghers are paying in the way of fees and subscriptions less than one-half of the amount of the State subsidies. In one school there are 90 out of 100 children being educated entirely at the expense of the State.

"School buildings and furniture are for the most part in a bad state of repair.

"Teachers are holding positions owing to personal influence, without regard to their qualifications. There are teachers who are unable to sign their own names properly, who can not spell the words 'Pretoria' or 'Potchefstroom' without a mistake, and who do not know the difference between a noun and an adjective.

"Out of 538 teachers only 105 have teachers' certificates."

On the other hand Mr. Ode, secretary to the education department, 1890–1892, denounces the inspectors as incompetent and as holding qualifications vastly inferior to those held by many teachers whose schools they were appointed to inspect. "Four out of five of the inspectors," he says, "have not the qualifications that would enable them to take charge of the lowest class of school in Holland."

It is possibly owing to this laxity or leniency of administration that we have to ascribe the fact that up to the year 1892 the various nationalities living within the borders of the Republic were treated exactly alike in respect to education. The discovery of the Witwatersrand gold fields brought thousands of Europeans, mostly English speaking, and had the clause of the law of 1882 which provided that Dutch was to be the medium of instruction been rigidly enforced it would have borne hardly upon the newcomers. It is difficult to determine how far the Volksraad connived at this evasion of their enactment, but the fact remains that there were numbers of schools in Johannesburg, Pretoria, and other centers of population wherein the medium of instruction was almost wholly English, and which were in receipt of State subsidies on equal terms with the purely Dutch schools.

THE HOLLANDER RÉGIME.

In June, 1891, Dr. Mansfelt, a Hollander teacher from a school in Stellenbosch, was appointed to the post of superintendent of education. * * * The law 8 of 1892, drafted by Dr. Mansfelt, differs from the law of 1882 principally as follows:

(1) Subsidies for "lager onderwijs" are raised from £3 to £5, and for "middelbaar onderwijs" from £5 to £7.

(2) All teachers must be members of a Protestant church.

(3) All lesson books must be written in Dutch. Not more than three hours per week in Standards I–III, and four hours per week in Standards IV–VI may be devoted to instruction in a foreign tongue.

It will be noticed that (2) at once excludes Roman Catholics and Jews from any chance of participation in State subsidies; (3) excludes from State schools all English-speaking children, including many from the Cape Colony, who would find it more difficult to receive instruction through the medium of the Dutch of Holland than through the medium of English.

This clause was much criticised. Many Dutch people complained that for lack of a knowledge of the English language their children would be cut off from opportunities of employment for which they otherwise would be eligible. But Dr. Mansfelt stuck to his guns, and in a subsequent report we find him fulminating against the foolish claim of parents to have their children taught English as being fraught with serious consequences to our "national existence." In explaining a falling off in attendance he has to admit that certain Dutch parents, deeming the time allowed by law for instruction in English too short, have sent their children to schools where they can get "fuller scope for their short-sighted desires."

When the draft of Dr. Mansfelt's law was published there was great consternation among those interested in education in the gold fields. Deputations were sent to Pretoria to see Dr. Mansfelt and members of the Government. This agitation resulted in the passing of a Volksraad resolution in terms of which, subject to conditions, children in schools in which the medium was other than

Dutch might earn a subsidy of £4 per head per annum. The conditions are the interesting feature of this besluit.

1. The clause in law 8 of 1892 still held, which provided that teachers must be members of a Protestant Church, thus excluding Roman Catholics and Jews from any benefits to be derived under the resolution.

2. Children under 6 years of age were ineligible for grants.

3. Children of Dutch-speaking parents were excluded from earning this grant, the Government arguing that their place was in a Dutch school.

4. Children not excluded under 1, 2, and 3 had to satisfy the Dutch inspector in an examination in the Dutch language and Transvaal history. The Dutch teacher had first to be approved by the education department.

As the uitlander schools were mostly small, rarely exceeding 100 children (the attendance in the majority of cases being below 50), it was found that the percentage of children able to satisfy the conditions was so small that the amount of grant earned was insufficient to pay the salary of the Dutch teacher. Only large schools with few young children and with a minimum of the Africander element could hope to earn anything under the besluit. Several schools in endeavoring to earn this grant sustained financial loss. During the eight years the besluit was in operation the average number of children earning grants in accordance with its terms was less than 200.

The effects of the new legislation were observable in other ways. In 1891 there were 99 town schools and 453 ward or country schools with 8,170 children drawing State subsidy. In 1893, after Mr. Mansfelt's law had been in operation for eighteen months, the town schools had been reduced to 59 and the ward schools to 353, while the total number of children was only 5,909. When it is observed that there was a falling off of something like 40 per cent in the town schools, it may easily be inferred (as was the case) that the bulk of the 2,261 children turned out of school or deprived of State subsidy were the English-speaking children living in Johannesburg and around other centers of population. One or two good voluntary schools in Johannesburg absorbed some of these children, whose parents were able to pay the high fees; the private adventure school sprung up for the benefit of others; many were left in the street. This serious condition of things was much aggravated owing to the influx of new population in 1894 and 1895. Public attention was from time to time drawn to the matter by bodies like the Transvaal National Union, but it was not till 1895 that any practical steps were taken.

THE COUNCIL OF EDUCATION.

In April, 1895, Mr. H. S. Caldecott, a leading Johannesburg solicitor, read a paper before a meeting of influential Johannesburgers in which he called attention to the deplorable state of things. * * * Mr. Caldecott's revelations evoked profound attention, and before the meeting closed considerable funds were subscribed. A number of gentlemen, with the corporate title of "Council of Education, Witwatersrand," were elected to administer these funds in the interest of the neglected children, especially those on the mining areas. The first act of the council was to appoint a director, who entered upon his duties in September, 1895. This gentleman was forthwith instructed to make a survey of the mining area of the Witwatersrand and embody his observations in a report. It was necessary not only to approximately ascertain the number of children not attending school, but also to gauge as nearly as possible the value and extent of the voluntary educational work already being done among uitlander children. The council's report revealed the fact that in the mining area—roughly, 40 square miles—there were some 2,000 English-speaking children of school-going age, while there was not throughout the whole area a single school that might be described as efficient. A common type was a collec-

tion of children, numbering from 20 to 40 and of varied attainments, crowded into a single room of a dwelling house and presided over by a lady whose qualifications would hardly have enabled her to pass a fifth standard examination. In one case 130 children were found crammed into a room 18 by 30 feet. A large number of the mines children were not attending any school. In Johannesburg itself, including half a dozen mines in the immediate vicinity, there were 55 uitlander schools. Of these, 13 were housed in regular schools buildings, 13 in churches, and 28 in rooms of private dwellings. Out of 187 teachers, 46 held teachers' certificates. The number of children of school-going age was estimated at 6,500, of whom nearly 2,000 were not attending school.

The council's report recommended: (1) The providing of school accommodation and efficient teaching at the mines; (2) the subsidizing and controlling of deserving schools in town in the interests of the artisan population, and (3) the erection and maintaining of poor schools for the children of those unable to pay fees, irrespective of nationality.

To carry out this scheme would have involved a capital expenditure of about £60,000. It was clear that so large a sum was not likely to be forthcoming from individual donors, and efforts were made to interest the Chamber of Mines in the matter. The chamber met the council's advances in a friendly spirit, and having approved of the scheme, drew up a scale of assessment subject to which the mines were recommended to furnish the council with the necessary funds. The Jameson raid occurred at this juncture, and the political uncertainty of the subsequent months made it impossible to press the mines to give effect to the chamber's recommendations.

Meanwhile the council had been taking steps to have its status in the Republic defined. A trust deed was drawn up providing that the gentlemen elected at the public meeting of April, 1895, and who signed the deed of constitution, were to form the first council. Members were elected for life. The council was empowered to coopt members to its own body to fill vacancies caused by resignation, absence from the country, etc. Provision was made for trustees, in whom the council's moneys and property were to be vested. The council was empowered to found and support schools, to support schools not founded by the council, to support or assist technical or night schools, endow bursaries, and generally to further education within the area of its operations. The sphere of operations was restricted to the Witwatersrand, but might be extended to any other part of the Republic by resolution of council. The deed was registered at Pretoria in March, 1896.

The unrest of the first months of 1896 was followed toward the end of the year by a sense of impending reforms which rendered impossible the prosecution of the council's scheme as laid before the Chamber of Mines. Rumors regarding the appointment of an industrial commission suggested the possibility of general emendatory measures, and it was thought by some that heroic voluntary effort at this time in the cause of education would be equally impolitic and unnecessary. The state of things educationally, as revealed by its investigations, was, however, too serious to allow the council to be greatly influenced either by the unrest or the ensuing optimism, and it was resolved to get to work and make the most of the available funds, some £10,000, subscribed at the public meeting of April, 1895. Accordingly, regulations were drafted, subject to which assistance might be dispensed to deserving schools, and a code of instruction was drawn up. Before the end of the year (1896) the council had three school properties of its own and had assumed the control of and financial responsibility for three others. No effort was spared to make these schools efficient; only trained and experienced teachers were employed. Buildings were improved and furnished with the most approved equipment. In the selection of sites great care was taken not to overlap or inter-

fere with other efficient voluntary work. Good schools, not under the council's direct control, were strengthened by grants varying from £25 to £100. Working on these lines it was hoped to get the maximum of result from a minimum of expenditure. The council, moreover, undertook the inspection of and reported on schools not otherwise connected with it, and the adoption by these and other schools of the council's code of instruction gave a measure of uniformity of aim to primary education on the Witwatersrand.

While the council was engaged on the work described above, strong representations were being made as to the need for instruction in chemistry and assaying for the benefit of young men engaged in the cyanide works and assay offices at the mines. The council took the view that after a little nursing work of this kind might be rendered almost self-supporting, and the services of a thoroughly qualified man were obtained from England to inaugurate the experiment. In January, 1897, classes in physics, chemistry, and assaying were opened, a class-room and laboratory having in the meantime been thoroughly equipped. The physics and chemistry classes were largely attended by teachers and pupils of Johannesburg schools who were desirous of qualifying for the examinations of the Cape University, but most of the students in chemistry and assaying came from the mines. Many of the latter traveled long distances to the classes after doing their shift at the mines and the majority never completed their course. Consequently revenue in the shape of fees from this source was an uncertain and diminishing quantity. The strain of permanently devoting considerable subsidies to these classes, in view of the paramount importance of the other educational work, was more than the council could bear, and the classes were closed after running for a year and a half. The council, however, had the satisfaction of seeing several of their students obtaining good appointments at the mines.

During the early months of 1897 the opportunity of acquiring suitable premises at a reasonable cost enabled the council to carry out its desire to establish a high school for boys. Certain existing school premises were purchased and enlarged. The building was completely furnished with the most modern furniture and apparatus. Highly qualified teachers were appointed and the school opened with about 30 boys. Within a year the school, with an attendance of over 100, became self-supporting, thus justifying the considerable initial expenditure.

During the last quarter of 1897 the attendances at council's schools were as follows:

Science classes	29
Jeppestown school	131
Booysen's school	76
Braamfontein	123
Brickfields	307
Boksburg	71
Springs	35
City and suburban	47
Total attendance	819

The amount paid in subsidies at per annum and not including administrative expenses was £1,663 15s. Seven hundred and fourteen pounds of this was absorbed by the science classes, leaving £949 15s., or a little over £1 4s. per pupil for the schools proper.

EDUCATIONAL LEGISLATION FOR UITLANDERS.

Meanwhile the State education department had manifested considerable alarm at the publication of the council's report in 1895. An Uitlander education law was immediately promised, and was published in August, 1896, but, as far as

related to the Uitlander, it simply transferred the control of education from the Volksraad to the Government and superintendent of education. * * *

From regulations issued under the law it appeared:

1. That the qualifications of the teachers of the new schools were so limited and defined as to make it impossible for any one but a Hollander to become head master.

2. A child during his first year in school was to devote one hour per day to instruction in Dutch (the Dutch of Holland); in his second, two hours, and in his third year three hours, whilst in his fourth year he was expected to take the whole of his instruction through the medium of that language.

When these regulations were published the council, knowing how limited was the school life of the average child, again protested vigorously and called the attention of the British agent to the matter. Dr. Mansfelt was in the meantime experiencing difficulty in getting a supply of Hollander teachers qualified to become heads of schools where the children were mainly English. This difficulty was surmounted by the somewhat unique expedient of getting a law passed to enable teachers to proceed to England from Holland to learn the language at the cost of the State. Ordinary traveling expenses had been provided for by a law which had been passed pari passu with the Uitlander education law in 1896.

The schools under this law had very little effect upon the educational situation. According to Dr. Mansfelt's latest report there were 7 schools under the law throughout the republic. In 1 the children were mostly all Dutch. In 3 about half Dutch and half English; 3 were wholly English. The average attendance in the 7 schools was 540. Apart from administration and building expenses, these 540 children cost the state £7,240, or £13 8s. per head, during 1898.

THE COUNCIL AND THE EDUCATION DEPARTMENT.

Although the council took occasion to criticise abuses and anomalies in the educational laws of the State, it is not to be assumed that its attitude toward the educational department was irreconcilable. On the contrary, several attempts were made to meet the department with a view to discussing matters and arriving at a modus vivendi. * * * Friendly relations were cultivated with moderate Dutchmen interested in education as well as with the committees of some of the State schools in the vicinity of the gold fields, many of the latter receiving from the council assistance denied to them by their own department. Direct application to the department having failed, the council, in the beginning of 1898, endeavored to approach the Government through the medium of certain Johannesburg burghers, the mining commissioner and burgomaster undertaking to carry a letter from the council to Pretoria. No reply was vouchsafed to this letter.[a]

STATE EDUCATIONAL STATISTICS.

At this point it would be interesting to note some figures from Dr. Mansfelt's report for 1898, published September, 1899. The average number of pupils in the State schools during 1898 was returned as 14,940. The total State expenditure, including about £21,000 for buildings, reached the enormous total of £226,416, or about £15 3s. a head. In Cape Colony for the year ending June, 1899, the average attendance was put at 107,783, the total cost to the Government being £270,758 6s. 9d., or about £2 10s. 2d. a head. The actual cost to the Colony of the education of white children as distinguished from colored for the same financial year was roughly about £3 5s. per head.

[a] See Appendix, pp. 476-8.

One item of the South African Republic educational figures is that of "logies-gelden" (lodging money). By a law passed in 1896 it is provided that poor parents living more than three miles from a school can arrange with the school committee for lodging their children, the State undertaking to pay a sum varying from £12 to £18 per annum. Taking £15 as the average payment on this account, it thus appears that in 1898 over 3,000 children were being wholly or partially maintained at the expense of the State, the total sum expended under this head being £45,355 17s. 1d. Under the heading "children of indigent burghers" comes the item of £40,675 11s. 8d. This is the year's expenditure under a law authorizing the Government to pay school fees for poor parents. The sum represents the school fees of 5,084 children at £8 per annum. Taken together, the above two items show that during 1898 the burghers of the State received gratuities from the public funds amounting to £86,031 8s. 9d. Other items which appear in this report are £7,162 6s. paid as bursaries to students in Holland, the State Mining School, with 4 students, at £261 13s. 3d. each per annum, and the gymnasium, with 88 pupils, at £88 12s. 9½d. each per annum.

The increase of over 6,000 in the attendance since 1892 is not difficult to understand in view of the fact that more than 7,000 children were either being lodged or having their school fees paid at State expense. The attainments of the children, however, in view of this large expenditure, are disappointing. Of the children in standards, 56.2 per cent are in Standard I, whilst the percentage in Standard VI and over was only 0.3. In the Cape Colony for the same year the figures were for the same groups 29 and 5.6 per cent, respectively.

PRIVATE VOLUNTARY WORK IN JOHANNESBURG.

In Johannesburg during the years 1895–1898 excellent educational work was being done by a few private and entirely unaided schools. Some of these schools were well equipped, being furnished with gymnasia and apparatus which would compare favorably with that of the best European schools. The fees in these schools were necessarily high, ranging from 15s. to 40s. per month. The attainments of the children were good. During the four years under review the average number of pupils entering for the Cape University school examinations was 130, and the percentage passing in the upper divisions was high. The Cape examinations and examinations held under the auspices of the council of education showed that the position of the children in all the standards was much higher than in the State schools, approximating much nearer to the Cape percentage. The Johannesburg Kindergarten Association, started in 1897, was doing a good work amongst infants and younger children.

LATER WORK OF COUNCIL.

During 1898 the council, subject to certain guarantees, handed over the school in Jeppestown to a committee of parents of the pupils attending the school, the committee undertaking all financial responsibility. During the same year the council opened a school at Luipaards Vlei, which after a few weeks showed an attendance of 35. During this year the English school at Krugersdorp was also taken over by the council, the school having an average attendance of 90.

Toward the end of this year it was considered that the time had come to make a strong effort to augment the council's funds, with a view to extending operations. It was resolved to attempt to resuscitate the original scheme of 1895 in its entirety. A letter was forwarded through Mr. Percy Fitzpatrick to Messrs. Wernher, Beit & Co. and other financial houses in London who were interested in the Witwatersrand setting forth the then existing situation and indicating the work that had been done by the council in the past. The facts revealed by this letter evoked

considerable attention in London, and the appeal resulted in subscriptions amounting to nearly £100,000 being paid into the council's funds before April, 1899. In view of the increased educational needs consequent upon the augmentation of the mining population since 1895, the council resolved if possible to reserve this fund entirely for purposes of capital expenditure, and the mines were asked for contributions toward annual maintenance. The mines were asked for £17,000 per annum, and up to September, 1899, nearly 13,000 had been guaranteed for a period of three years. A scheme involving the erection of upward of 20 school buildings on the mines was prepared, and the council was engaged on the arrangement of plans and the selection of building sites when the imminence of war put a stop to the work; and under the new conditions which will be established in the Transvaal it is not now possible to say what, if any, arrangements in this direction may be made by the council in future.

JOHN ROBINSON,
Secretary to Director, Council of Education, Witwatersrand.

APPENDIX.

Memorandum relating to education on the gold fields of the Witwatersrand, presented to the government of the Z. A. R. in March, 1898.

In consequence of want of means, and in some cases parental apathy, there are very many children of school-going age on these gold fields who are not attending school. There are hundreds more whose education is merely nominal, there being a great number of schools which are understaffed to such a degree that their efficiency is very seriously impaired.

From lack of sufficient data we are unable to determine the exact number of children not attending school, but inquiries point to the conclusion that 1,700 or 1,800 is well within the mark so far as the 3-mile radius is concerned. Inquiries in the city and suburban and Fordsburg districts compel us to conclude that at least 1,000 children are attending private-adventure schools, carried on in sheds or rooms of dwelling houses, and presided over by teachers without any credentials whatever. In 8 well-known primary schools there are 1,600 children, and the work of these schools is suffering to a serious extent owing to their being insufficiently staffed, consequent upon lack of means.

We are convinced that these figures (4,300) far from represent the actual number of children who are either having no education or whose education is of a defective character, but if these were all we feel that there is sufficient ground to call for prompt action on the part of the Government; for this state of things, if perpetuated, is bound to grievously affect the peace and prosperity of the State in the near future.

A year and a half ago a law was passed for the benefit of the gold fields to provide for education where no provision, or only insufficient provision, existed already. Up to the present very little has been done, and the evils flowing from lack of education or inefficient education continue in all their intensity.

By placing a sum of £45,000 on the estimates for education on the gold fields under law 15 of 1896 the Government has again emphasized the principle that it should provide education where it is not provided and supplement it where it is indifferent. The acceptance and reiteration of this principle implies that the Government is anxious to give the widest possible scope to the operation of the law, and we venture to make the following suggestions as to how this result can best be achieved.

We are convinced that the Government can only secure the most effective working of the law by having careful regard to the wants of every individual school

district, and this can only be done through the instrumentality of a representative central-school committee, which should be endowed with the following powers:

1. To encourage local initiative by awarding grants in aid toward the cost of erecting school buildings, teachers' dwellings, etc.

2. Where local initiative is not available, to select sites and erect school buildings thereon.

3. To award grants to efficient existing schools whenever it is clear their efficiency would be increased by such grants. (The extent of Government surveillance in these cases to be arranged by the board in consultation with the superintendent of education.)

4. The appointment and payment of teachers.

5. The bringing into existence, wherever desirable and possible, of local committees of management and defining the outlines of these committees, with power to the general committee to delegate to the local committees any of its functions that may be thought desirable.

6. The determining as to the medium of instruction in schools controlled or aided through the board, with the proviso that there must be thorough teaching of the language of the country in all schools in which it is not the medium of instruction.

We should like to note the fact that the Government have ready to hand, in the Witwatersrand council of education, just such a board as is required. This raison d'être of this board is the improvement and advancement of education on the Witwatersrand, and it would gladly cooperate with the Government in this work. Should the board not be considered sufficiently representative the members would welcome such nominees as the Government might see fit to appoint.

The council of education came into existence two and a half years ago. It has now under its control 6 schools, with 813 children. The council also makes provision for technical instruction connected with mining. Starting with about £10,000, the council has still invested in 3 school properties £6,423; £1,513 17s. has been paid out in grants in aid toward cost of building and maintenance to schools not properly council schools. This leaves a margin of about £2,063 3s. as the sum with which the council has launched its schools and carried them on for two years—carried on the science classes for one and one-half years and the general administration of the work since its commencement, two and a half years ago. While the council has thus established a reputation for economy of administration which would stand it in good stead in the event of an appeal to the public for further funds, yet it would prefer, if possible, to work together with the Government in its further efforts on behalf of education on the Rand.

By making use of this organization to help to carry out its intentions with regard to education on the Witwatersrand the Government would secure a twofold advantage, unattainable by any other means. The council is in full sympathy with the main body of the people on the Rand, and it could bring into the State schools thousands of children, whereas hundreds would be the limit if the schools are to be administered from Pretoria. In the second place, the council could do much to prompt local bodies to take the initiative and bear part of the cost of education, for the members of this board fully appreciate the value of the principle that the initiative should come from the people, a principle which we know is regarded as fundamental in the education laws of this State.

Whether the Government elects to make use of this board or not, the conditions on the Witwatersrand seem to point to the conclusion that it is only by the adoption of a plan such as is above outlined that we can hope for good results in dealing with the problem of defective education on the Witwatersrand. In case the Government should not elect to make use of the council of education as its general school committee on the Witwatersrand, the executive committee of the council

would again point to its work in the past, in the hope that the Government may see its way to placing yearly a sum of £10,000 or £15,000 on the estimates to be expended by the council, acting together with such men as the Government may nominate. Statements and vouchers relating to the expenditure of such moneys would be regularly submitted as the Government might determine.

H. S. CALDECOTT, *Chairman*,
J. ROBINSON, *Secretary*,
Witwatersrand Council of Education.

The following article on "Education in the Transvaal and Orange River colonies" (after the annexation), cited from the School Guardian, January 4, 1902, appeared originally in the London Times:

The services of an exceedingly capable expert, Mr. E. B. Sargant, as director of education, have been secured, and the work already done in his department is a most favorable augury for the future.

In the latter half of last year a considerable number of schools had been opened in the Orange River Colony under the administration of the military governor of that colony. At that time the anticipation of a speedy termination of the war was entertained, and the southern portion of the colony seemed to have been cleared, once and for all, of the enemy. Many schools were accordingly opened in villages occupied by our forces, which afterwards had to be closed when the troops relinquished these positions. In the Transvaal, on the other hand, little provision was made for education until this year. A number of private schools in which instruction was given in Dutch to Dutch children had continued to keep open, supported partly by fees and partly by the funds of a committee in Holland. It was not until Mr. Sargant had been able to make himself personally acquainted with the sphere of his new work that full advantage began to be taken of the opportunity afforded by the concentration camps for laying the foundation of future education in the new colonies. A modest start had been made in the prisoners' camp at Green Point, Cape Town, where the Boers had formed a school for the younger inmates. A demand for English books came spontaneously from the prisoners themselves. This, it should be stated, is but one of many instances where the burghers have shown a desire to perfect themselves in the English language. English books were provided, and a member of the new education department undertook to supplement the prisoners' tuition.

The work of teaching the children collected in concentration camps, once begun, proceeded apace. It is interesting to note that while, according to the statistics of the late Transvaal government, education was being given at the outbreak of the war to 14,700 children, the number on the register last month fell very little short of that figure, and at the end of the present month is expected to be 15,000. In the Orange River Colony the number of children being taught in the various government schools is about 8,000. The concentration camps naturally offer more opportunities for reaching the children of burghers than exist in normal times, when the people are distributed over the country on farms. But there is no compulsory attendance in the camps, and the number of pupils on the register is very little over 50 per cent of the total number of children of school age; i. e., between 6 and 14.

There are 16 camp schools in the Transvaal, containing, in October, 14,081 children of school age. Of these, 7,166 were on the registers, and the average attendance was 70.4. But these by no means represent all that is being done in the cause of education. The work is inevitably restricted by the exigencies of the military situation, but schools are being opened wherever circumstances permit and there are sufficient children to form one. In Pretoria there are five free schools and two fee-paying schools under government, with 853 and 326 pupils, respectively; on the Rand, 15 free schools with 2,436 children. Free schools have also been opened at Nigel, Barberton, Vryheid, Wakkerstroon (these two villages are not on the railway), Middelburg, and Potchefstroom. At the latter place there are two free schools, while at Middelburg and at Potchefstroom there are also fee-paying schools, with 272 pupils. The total average attendance for all schools in the Transvaal is satisfactory, being over 75 per cent.

It will thus be seen that in one department, at least, of the civil administration, considerable progress has been made, in spite of the unsettled nature of the country as a whole. The demand for education, which must be regarded as a healthy and reassuring feature in the preliminary efforts at a settlement of the

new colonies, has indeed been so widespread that it has been impossible to respond to it adequately. The supply of teachers was necessarily limited.

In the camps many had to be employed who were ignorant of English, but here again the eagerness on the part of the teachers to learn was most marked. It has been necessary to call for a hundred trained teachers from England for the camp schools. The first draft of 25 is expected to arrive shortly, similar drafts following at intervals of one month. It might here be mentioned that there is no intention to oust the present Dutch teachers from their posts. Where these have an inadequate knowledge of English, it is proposed that part of their time should be devoted to learning that language. In a few months they will be themselves the best means of teaching children of their own nationality English, and their services will readily be enlisted.

Care should be exercised in the selection of the teachers sent out from England, and preference should be given to those who have had experience in country schools rather than in town-board schools only. Their work will not be limited to imparting merely knowledge to Dutch children. They should realize that they have been permitted to assist, and very materially, in the cause of the Empire, and by winning with ready sympathy and tact the hearts of the people, both young and old, they will contribute as much as can the wisdom of statesmen toward securing lasting peace for South Africa. It may be not without interest to give some idea of the general system of education that is likely to be adopted, as soon as circumstances allow, in the new colonies.

The chief difficulty that presents itself in a country where a large section of the population is rural, living on farms of wide extent and far removed from villages and towns, is to devise some scheme that will bring the children on the most distant farms within reach of educational advantages. The Boer government, as has already been pointed out, made no attempt to grapple with this difficulty. Under the new régime schools will, as a matter of course, be established in every village, and in all probability in centers where more than twenty children can be collected. Attached to these schools will be a certain number of visiting teachers (in settled districts these would be women), who will arrange a weekly system of visits to farms in the neighborhood. The system has been ingeniously worked out by Mr. Sargant as follows: Starting out in a certain direction, two teachers could travel in that convenient South African vehicle known as a Cape cart, to a farm (*a*) where one would remain to give a morning's instruction while the other would be driven on to the next farm (*b*) to teach the children there. The farmer at (*a*) might then lend his own cart to carry on the first teacher to join her comrade at (*b*), whence they could go on to farms (*c*) and (*d*), respectively, to give an afternoon's instruction. At (*d*) they would remain the night. On the next day the same arrangement would be made, the journey being homeward by a different route. The third day would be spent at the village, while a second round of the same nature would complete the working week, and each teacher would have visited eight farms. The scheme would be subject to alterations according to local requirements, but there seems to be no reason why it should not work successfully. At the farms visited by the teachers, children would be collected from the neighboring properties, with a possible minimum of five and a maximum of twenty. A good week's work for a visiting teacher would be to give instruction to fifty children in the four days. This would leave a margin for alterations in the scheme when distances or other obstacles prevented the maximum number of farms from being visited. In the intervals between the teachers' visits the children's tuition would have to be committed to a member of one of the families represented. It should not be difficult to find an elder sister willing to continue the children's lessons during the week, and where necessary she might first be given brief training at one of the larger schools.

It is proposed to divide the two colonies, for purposes of education, into provinces, in each of which one "provincial" school will be established at the most important town. In these schools provision will be made for secondary education and for the instruction of pupil-teachers. The head of the school will be responsible for the pupils receiving secondary education and for normal students. At the same time he will be intrusted with the supervision of the village or "ward" schools in his province, and as some of his time must be devoted to inspecting these, he will be provided with a skilled assistant to carry on his work in his absence.

The necessity of introducing from the beginning a sound system of State education in the interests of the future welfare of the colonies has never been lost sight of, and it is illustrative of Mr. Sargant's thorough grasp of the needs of the country that he has endeavored to secure only public-school and university men for the post of a "provincial" head master. The salary offered, £500 a year with a

house, together with £250 for an assistant (who it is suggested might be the head master's wife, a woman being desirable in view of the likelihood of the majority of the normal students being girls), should prove a sufficient inducement to secure suitable candidates.

In the Orange River Colony there will be at first eight provinces, and in the Transvaal ten; to each of the latter there will be four ward schools, and two visiting teachers to each ward school. But as the educational system expands the number of provinces, of ward schools to each province, and of visiting teachers to each ward will grow considerably. In the capitals and in Johannesburg separate schools—a high school for boys, a high school for girls, and a normal school—take the place of the upper part of a provincial school. The work of the provinces will be gathered up in the two central departments at Bloemfontein and Pretoria, each with an assistant director of education and an administrative staff. The director of education will reside at Johannesburg. The scheme thus briefly sketched is one of delegated authority from the head of the department, elasticity being given to a framework which might otherwise prove too rigid by conceding to the provincial head masters, each within his own area, considerable freedom as regards educational methods and organization.

CHAPTER X.

NOTICES OF SOME EARLY ENGLISH WRITERS ON EDUCATION—PART II.[a]

WITH DESCRIPTIONS, EXTRACTS, AND NOTES.

By Professor Foster Watson.
Of University College, Aberystwith, Wales.

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Thomas Lupset. 1498?–1530.

Thomas Lupset was sent by Dean Colet to S. Paul's School and Pembroke Hall, Cambridge. He read the rhetoric and humanity lecture at Corpus Christi College, Oxford, 1520, and afterwards Wolsey's Greek lecture, in the University of Oxford. He had as patrons, Colet, Pace, and Wolsey, and as friends, More, Erasmus, Linacre. "He was very serviceable to his learned contemporaries in preparing and correcting their works for the press." He prepared the second edition of More's Utopia.

For further account of life, see Dictionary of National Biography, Vol. 34; Cooper's Athenæ Cantabrigiensis, Vol. I, p. 40; and Gentleman's Magazine, 1856, Part I, p. 119.

Lupset (Thomas).

An Exhortation to yonge men, perswadinge them to walke in the pathe way that leadeth to honeste and goodnes: writen to a frend of his, by Thomas Lupsete, Londoner. B. L. *T. Berthelet, Londini*, 1534, 1535, Sm. 8vo. Also 1538, 1544. (Written 1529.)

(Consists of 99 pp.)

[a] The first part of these Notices formed Chapter XVII, Vol. 1, of the Report of 1901 (pp. 861–884).

I have never seen this book described by any writer on education, but it seems to be of more than ordinary interest and importance, as a witness of contemporary aims.

It is addressed "to my withipol [a term of endearment] my hearty beloved Edmund".[a] It is dated from More (in Herts), a "place of my lorde cardinals" (Wolsey). Lupset says: "I lie waiting on my lord Cardinal, whose hours I must observe, to be always at hand, lest I shall be called when I am not by; the which should be straight taken for a fault of great negligence. Wherefore, now that I am well satiated with the beholding of these gay hangings, that garnisheth here every wall: I will turn me and talk with you." The writer goes on to state his love for Edmund, but he has concealed it. "For long I have been taught, that the maister never hurteth his scholar more than when he uttereth and showeth by cherishing and cockering the love that he beareth to his scholars. I think you lacked with me no cherishing, but of cockering you had very little." But Edmund is no longer a pupil; he is, however, Lupset's friend. And if the author has a friend, "I reckon straight," says he, "that all his be mine without any exception: So that in very deed I take to my care, as mine own, all things that be in my friend's care."

For the leading of a good and honest life, there are certain authors who should be assigned to all—young and old. It is not, however, "the reading of many books, that getteth increase of knowledge and judgment, for the most part of them that readeth all indifferently, confound their wits and memory without any notable fruit of their reading." Much time is lost by those who do not know how to pick and choose their reading.

There are three matters which must never be forgotten, both as to their dignity and nature, and especially as to the degrees and order of them, viz, the soul, the body, and the substance of this world. "Care for your body, for the soul's sake. Care for the world for the body's sake. Beware above all things that you go not backward, as he doth, that careth first to be a rich man: next to be an healthy man, and thirdly to be a good man: when he should do clean contrary." Merchants err in this matter, nay, for the most part all men do no otherwise. Scholars are just as bad. They have as little regard for the soul. "How far out of square, our life is!"

Again and again remember the soul is the first care, and requires the fear and love of God to sustain it. Therefore study the New Testament, and submit yourself to the expositions of holy doctors. Meddle in no point of your faith otherwise than the Church shall instruct and teach you. Seek above all things the kingdom of heaven and all other things shall be added unto you. As commentaries always have at hand Chrysostom and Jerome. At leisure, also, read Aristotle's Ethics, either under some expert philosopher or else with the comment of Futtiratius. Let Plato be "familiar with you," especially the De Re Publica. Read Cicero de Officiis, de Senectute, de Fato, de Finibus, de Achademicis Questio, de Thust.[b] Especially read with diligence the works of Seneca, of whom ye shall learn as much of virtue as man's wit can teach you.

These books can lift men above the clay of this earth and set them on a hill of high contemplation: from whence they shall look down and despise the vanity which foolish men take. If another book be added, let it be the Enchiridion of Erasmus.

Secondly, take care of your body. Beware of corrupt air. Keep from gluttony. Fast sometimes for devotion and for health. Sleep too little rather than too much.

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[a] It has been pointed out that one Richard Withipol was vicar of Walthamstow, Essex, at the time, and may have had a son, Edmund, but this is very problematical.

[b] Probably a short form for the Tusculan Disputations.

Exercise you continually. Let never the sun rise before you. Flee idleness. Be temperate.

Thirdly, is the care for this world's goods. Lupset admits: "I can give you small advice of myself because I have had but small experience herein." Remember, however, it is third in order. For the rest: In making your bargain keep faith and promise: deceive no man with any guile or false color. There is no tittle so small of virtue, that is not to be valued without comparison above the whole power of the earth and seas, through Asia, Africa and Europe. Reckon not possession of lands, substance of merchandise or abundance of money to be comparable to a good friend. On this point, read Cicero de Amicitia. As to your wife, when you marry, I am utterly of this opinion, that the man may make, shape and form the woman as he will. As to ordering your household, read the Economia of Xenophon. I will lend you a translation I have made into English if you care to read it. Read also Aristotle: Politics, Books VII and VIII.

Finally, Lupset points out that the second and third "goods" are not really permanent goods. Health may flee from the body; misfortune may despoil the rich man of his material wealth, but the goods of the mind are "sure ours." They can be taken away from us "but with our own will consenting."

One more book must be named, The Enchiridion of Epictetus, well translated into Latin by Angelus Politian. (Lupset intends to translate the comments of Simplicius on this book).

And one thing believe me, my good withipol, that in reading of these old substantial works, the which I have named unto you, shall beside the perfection of knowledge, gender a certain judgment in you, that you shall never take delight nor pleasure in the trifles and vain inventions that men now days write, to the inquieting of all good order: by reason that the most part of men that read these new flittering works lack perfect judgment to descrive [discriminate] a weighty sentence from a light clause, the which judgment can not be gotten, but by a long exercising of our wits with the best sort of writers.

Giovanni Ludovico Vivès. 1492–1540.

Born at Valencia. 1509 at the University of Paris. 1512 private tutor at Bruges. Afterwards, at Louvain, teacher of William de Croy, who at 19 years of age was nominated cardinal-archbishop of Toledo. Became tutor to the Princess Mary, daughter of Henry VIII. It was for her use he wrote De Ratione Studii Puerilis. In 1522 he wrote his Commentary on Augustine's De Civitate Dei, which he dedicated to Henry VIII. In 1523 he wrote his famous De Institutione Feminæ Christianæ, which he adressed to Queen Catherine of Aragon in 1523. In the same year he delivered two lectures in Oxford and received the degree of doctor of civil law. In 1528 Vivès presumed to speak and write against the divorce of Queen Catherine and was imprisoned for six months. He returned to the Netherlands, and taught the belles-lettres at Bruges until in 1540 he died at the age of 48.

For an account of the life (written in Latin) of Vivès see the splendid edition of his works, Vivis Opera Omnia, edited by Gregorius Majansius, 8 vols., published at Valentia Edetanorum in 1782; (Barnard's) American Journal of Education, Entire Series, Vol. XXVII, pp. 339–351 (compiled and translated from Schmid's Pädagogische Encyclopädie, written by Dr. Lange); Chalmers' Biog. Dict. Vol. 30, pp. 408–10; and Rose, Biog. Dict. Vol. XII, p. 378. In German, there is the excellent and full account by Dr. R. Heine in K. Richter's Pädagogische Bibliothek, Leipsic, Band XVI. Also Ausgewählte Schriften, edited by Wychgram, Wien, 1883; and F. Kuypert: Vivès in seiner Pädagogik. Eine quellenmässige systematische Darstellung. Dissertation, Kiel, 1897.

The complete list of the works of Vivès is very long. It is classified in the edition of 1782. I name those which have reference to the subject of education:

I. Rogativa ad Deum—6 separate works.
II. Grammatica—
De ratione studii puerilis—pars prima.
Altera pars de ratione studii puerilis.
Exercitatio linguæ Latinæ.
2 others.
III. Philologica.
IV. Rhetorica.
De ratione dicendi, libri tres.
De conscribendis epistolis.
4 others.
V. Philosophica. 10 separate works.
VI. Moralia.
De institutione feminæ Christianæ.
7 others.
VII. Legalia. 2 works.
VIII. Politica. 7 works.
IX. Historica.
De corruptis artibus, libri septem.
De tradendis disciplinis, sive de doctrina Christiana, libri quinque.
5 others.
X. Christianæ. 9 works.
XI. Epistolica.
XII. S. Aurelius Augustinus, de civitate Dei, cum commentariis Joannis Ludovici Vivis Valentini.

As to the general position of Vivès in the history of education, the following words of Professor Laurie may be quoted:

Like Comenius, he was one of those who were always hoping to find some basis of ecclesiastical and civil unity which might conciliate the distractions of the time. He is sometimes called a Humanist, sometimes a Realist. The truth is, that after giving promise of future distinction as a schoolman, he grew out of the scholastic philosophy, and became, in relation to the general current of thought, a Humanist, but without falling into the idolatry of style which characterised the leaders of that movement. (Teachers' Guild Addresses, pp. 177–8.)

As it only falls within the limits of this Bibliography to describe books published in England, the following translations are alone dealt with. It should, however, be named that the chief book by Vivès on education is his De Disciplinis, which includes De Corruptis Artibus and De Tradendis Disciplinis. Of this there is an excellent short account in the American Journal of Education, XXVII, pp. 343–7.

Vives (Joannes Ludovicus).

An Introduction to Wisdom... Translated into English by Sir R. Morison. B. L. *In ædibus T. Berthelti, Londini, 1544.* 8vo. Also 1544.

The translator, in his preface, describes the book. He is addressing Master Gregory Cromwell, son of Lord Cromwell, Lord Privy Seal:

It is not only an introduction to wisdom, but if ye go as it leadeth you, it introduces wisdom unto you, rooting the love and desire of virtue in your heart, extirping [extirpating] from it all manner of vice, and all uncleanness, furnishing you with general precepts for all kinds of life, for all ages, for all degrees and conditions, which precepts, if you harbor in your breast, must needs be a great stay, help and comfort unto your tender age. * * * Assuredly I know no one book untranslated, that hath half so many wholesome documents as this hath.

In the edition of 1544, "For the filling of void pages there are inserted certain flowers of most notable sentences of wise men, gathered together by Erasmus of Rotterdam and translated into English." Erasmus, Vivès, and Budæus are often spoken of as the triumvirate of their age in the republic of letters. It is appropriate therefore that flowers from Erasmus should be strewn upon the work of Vivès. The friendship between the two had been warm (as is shown by their letters) up to a certain point. Vivès had undertaken to supply a Commentary for S. Augustine's De Civitate Dei, which Erasmus was editing. Unfortunately, Vivès through ill-health partly was behindhand. Erasmus became impatient, and their friendship cooled.

There is another edition of this book, written in Latin and published at Aberdeen:

Joannis Ludovici Vivis Valentini, Ad Sapientiam introductio: Enchiridion repurgandis saeculi hujus vitiis accommodatissimum. Aberdoniae, Excudebat Eduardus Rabanus, Impensis Davidis Melvil. 1623.

Vives (Joannes Ludovicus).

A very frutefull and pleasant boke called the Instruction of a Christian woman, made fyrst in Laten by the right famous clerke maister L. Vives, and turned out of Laten into Englyshe by R. Hyrde, etc. B. L. T. Berthelet. 1540?, 1541, 1557, 1592.

Written in 1523, and dedicated to Queen Catherine of Aragon. The first book deals with women up to the age of marriage; the second with the married life of women, and the third is on widows. The chapters which are of special educational reference are those on the bringing up of a maid when she is a babe, of the residue of her infancy, of her exercise, of the learning of maids, and what books are to be read and what not. Vivès, like Elyot, wishes that the mother should nurse her children herself. If this is impracticable, great care should be taken in the choice of a nurse. Children should have no evil influence near them. As to the beginning of instruction Vivès leaves the determination of the age to fathers and mothers. But when the girl is ready let her both learn her book and beside that to handle wool and flax, "which are two crafts, yet left of that old innocent world." "I would in no wise that a woman should be ignorant in those feats that must be done by hand, no not though she be a princess or a queen." Queen Isabel, mother of Queen Catherine of England, taught her daughters to spin, sew, and paint. Add to these the teaching of cookery, not the "slubbering and excess in meats" which cooks meddle with, but the dressing of meat for her father and mother and brethren, while she is a maid, and for her husband and children when she is married. Moreover, cooking is of the first importance in bringing the sick to health. As to learning, Vives would have girls instructed especially in books containing precepts of virtue. "For if she can find in her heart to do naughtily, having so many precepts of virtue to keep her, what should we suppose she should do, having no knowledge of goodness at all." In reading let the girl have books that may teach good manners (morals). In writing let her examples be some "sad sentence," prudent and chaste, taken out of Scripture or the sayings of philosophers, which may by often writing fasten better in her memory. No woman should rule a school, nor live among men, nor speak abroad.

The books which girls and women should read are: The Gospels, Acts, Epistles and the Old Testament, S. Hieronyme, S. Cyprian, Augustine, Ambrose, Hilary, Gregory, Plato, Cicero, and Seneca.

The underlying thoughts of the Instruction of a Christian Woman are, firstly, that woman is frail, of weak discretion, and easily deceived; secondly, that the remedy is to keep herself from the ways of men and of the world. In childhood he would separate boys and girls, and not even allow them to join in games

together. As Dr. Lange says, the views of Vivès on the education of women are a direct consequence of his belief that women are "more inclined by nature to sin than men."

Linguae Latinae exercitatio. Joan. Lud. Vive Authore.

Discę puer linguæ quæ sunt abstrusa Latinæ:
Hic liber, aut nullus, quæ dabit apta tibi.

Edinburgi, Excudebat Gidion Lithgo, Anno Dom. 1657. 12mo. (96 pp.).

Earliest edition in British Museum (Basilia), 1541. 8°.

This consists of dialogues on daily actions of the pupil, going to school, school-work, return. As a forerunner to Comenius, it is interesting to note that Vivès treats of common *things*, taking up such subjects as clothes, the kitchen, bed-chamber, dining-room, paper and books, exterior body of man, and abstract subjects such as royalty, education, precepts of education.

JOHN PALSGRAVE. ?–1554.

Joannis Palsgravi Londoniensis, Ecphrasis Anglica in Comœdiam Acolasti.
The Comedye of Acolastus translated into oure englysshe tongue, after suche maner as chylderne are taught in the grammer schole, fyrst worde for worde, as the Latyne lyeth, and afterwarde accordynge to the sence and meanyng of the latin sentences: by shewing what they do value and countervayle in our tongue, with admonitions set forth in the margyn, so often as any suche phrase, that is to say, kynd of spekyng used of the latyns, whiche we use not in our tonge, but by other wordes, expresse the sayd latyn maners of speakinge, and also Adages, metaphores, sentences, or other fygures poeticall or rhetorical do require, for the more perfyte instructynge of the lerners, and to leade theym more easilye to see howe the exposytion gothe. And afore the seconde scęane of the fyrst acte, is a brefe introductory to have some general knowledge of the dyvers sortes of meters used of our auctour in this comedy. And afore Acolastus balade is shewed of what kyndes of meters his balade is made of. And afore the syxte scęane of the fourthe acte, is a monition of the Rhetorycall composytion used in that scęane, and certayne other after it ensuynge.

Interpreted by John Palsgrave.

Anno MDXL. (B. L. 4to. At the end of the book: Impress. Lond. in aedibus Tho. Berthel. regii impressoris, Cum privilegio ad imprimendum solum. Immediately preceding this occurs: William Fullonius the Maker of this presente Comedy, dyd set it forthe before the bourgeses of Hagen in Holand. Anno M. D. XXIX.)

Dedication to Henry VIII, "supreme head in earth immediately under Christ, of the Church of England," by "his most humble and most obeysaunt Chapleyn, John Palsgrave, bachelor of divinity."

This dedication is of high interest in giving a contemporary picture of schools and masters of the time.

One uniform Grammar.

When I consider [says Palsgrave, addressing Henry VIII] how highly your grace doth tender the well bringing up of your youth in good letters, insomuch that where as it is clearly perceived, by your most prudent wisdom, how great a damage it hath heretofore been, and yet is, unto the tender wits of this your noble realm, to be hindered and confounded with so many divers and sundry sorts of precepts grammatical: you have for the address thereof, willed one self and uniform manner of teaching of all those Grammatical ensygnementes, to be used throughout all your highness' dominions and committed the disposing of that matter unto such singular personages, both of exact judgment, & thereto of excellent literature, that I for my part do not a little hereof rejoice, and earnestly do

I wish, that I at these present days (which in that exercise have dispent no small time of my life) had observed but some one vailable document to bring to this Gazo-philacium, some thing to help to the furtherance of this your noble grace's so goodly & thereto so godly & much fruitful a purpose.

Pulsgrave's debate with himself.

I hereupon took occasion thus to reason and to debate with myself. Now shall the great variety used afore time in the teaching of the grammatical rules of the Latin tongue in this realm, whereby hitherto no small hindrance hath ensued, hereafter utterly cease and be put to silence * * * . Now it is intended that every school of your grace's realm, should begin to wax one self school, as far as to those said principles doth belong. But as yet unto my poor judgment (seeming to be a thing very much requisite) for the more effectual and speedy furtherance of your grace's said youth, I wished, that unto this much expedient reformation of your schoolmasters' unstaid liberty, which hitherto have taught such grammars, and of the same so divers and sundry sorts, as to every of them seemed best (and was to their fantasies most approved); might thereto also follow and succeed one steady and uniform manner of interpretation of the Latin authors into our tongue, after that the Latin principles were by your grace's youth once surely conned and perceived.

Why this is desirable? Incompetent schoolmasters.

Upon the want and default whereof, besides the great and evident inconvenience (of which the effect is too much in every place espied) that is to say, the plainly apparent ignorance and want of a required sufficiency of many, which, in private places take upon them to teach, afore they be their craft's masters. To whom the best grammatical rules, that ever were or could be devised, cannot vailably be sufficient.

Other causes 'whereby your grace's youth is not a little hindered:' Affectation.

Some instructors of your highness' youth, for want of a perfect judgment in this behalf, so much desire to seem affectately [affectedly] curious, that having no due consideration to the tender wits, which they take under their charge to teach in the stead of pure english words and phrases, they declare to their children one Latin word by another, and confound the phrases of the tongues. And thus not a little do hinder their young scholars, while they would seem for their own parts to have a knowledge and erudition above the common sort.

Another sort of master.

Some other again there be, which having undoubtedly, learning enough, vailable and sufficient, yet while they by sundry ways and manners of speaking used in our tongue, labor to express such Latin authors' minds, as they do take upon them for the time to interpret, and for to seem therein more diligent, than the common sort, dispend in manner whole forenoons and afternoons, in the declaring of a few lines of such Latin authors, as they for the season have in hand (as to confess the very truth, the schoolmasters' whole diligence tendeth in manner chiefly to that effect and purpose) they do by that means not only right little for the time further their young audience, but also by that ways do oppress and overlay the tender wits, the which they would so fain further, with their multitude of sundry interpretations, confusedly by them uttered. So that finally their young scholars, to help their memory with, be forced to fall a glosing, or rather a blotting of their Latin books and as their childish judgment doth for the time serve them, of divers English words in our tongue being synonyms, or of divers manners of interpretations used by their master, they choose most commonly the very worst, and therewith scribbled the books of their Latin authors.

Some masters know less English than Latin.

Some other furthermore there be, which though they have by their great study, at your grace's Universities, so much profited in the Latin tongue, that to shew an evident trial of their learning, they can write an Epistle right Latin like, and thereto speak Latin, as the time shall minister occasion, very well, yea and have also by their diligence attained to a comely vein in making verses: yet for all this, partly because of the rude language used in their native countries, where they were born & first learned (as it happened) their grammar rules & partly because that coming straight from thence, unto some of your grace's universities, they have not had occasions to be conversant in such places of your realm, as the purest English is spoken, they be not able to express their conceit in their vulgar tongue, nor be sufficient, perfectly to open the diversities of phrases between our tongue and the Latin (which in my poor judgment is the very chief thing that the schol-

master should travail in). In so much that for want of this sufficient perfection in our own tongue, I have known divers of them which have still continued their study in some of your grace's universities, that after a substantial increase of good learning, by their great and industrious study obtained, yet when they have been called to do any service in your grace's commonwealth, either to preach in open audience, or to have other administration, requiring their assiduous conversanting with your subjects, they have then been forced to read over our English authors, by that means to provide a remedy unto their evident imperfection in that behalf.

What no clerk has before attempted either in England or even in Europe.

Being therefore for my part desirous, that these inconveniences might also be provided for, and thereupon taking occasion, more attentively to bethink me upon this matter, then began the great difficulty of the well achieving thereof, the more plainly to appear unto me, not only because the like thing hath not yet hitherto (that ever I could know of) been thoroughly attempted of any clerk within this your grace's noble realm, but also forasmuch, as that to be *Ecphrastes* in their mother tongue, upon any Latin authors hath never hitherto (so far as I can yet perceive) been essayed in any other region of Europe; except perchance that some such as be lettered, have for their own ease and the more brief and speedy furtherance of their scholars, used such kind of interpretation in their own tongue upon some excellent Latin author, which they would never suffer to pass the bounds of their private houses.

Palsgrave then declares "the not attempting" of interpretation in other tongues has not proceeded from any natural inferiority of our English over foreign people in knowledge. Robertus Stephanus lately wrote De Corrupti Sermonis Emendatione. Nebrisensis laments the notable corruption of Latin amongst the Spaniards. Bebelius called on the Germans to leave their own phrase and take them to the assiduous reading and observing of the good Latin authors. "I take it," he says, "that Bebelius was in manner to the Germans as was Laurence Valla unto the Italians, by whose first exhortation and setting on so many excellent writers have risen amongst the Italians, within the time of memory."

Reasons for choosing Acolastus.

I have chosen for my Latin author, to be Ecphrastes upon, the comedy entitled Acolastus, not only for because that I esteem that little volume to be a very curious and artificial compacted nosegay, gathered out of the much excellent and odoriferous sweet smelling gardens of the most pure Latin authors, but also because that the maker thereof (as far as I can learn) is yet living, whereby I would be glad to move into the hearts of your grace's clerks, of which your noble realm was never better stored, some little grain of honest and virtuous envy, which on my party [i. e., part] to confess the very truth unto your grace, hath continually in all the time of these my poor labors taking, accompanied me, and stirred me onwards to achieve this matter, on this wise by me attempted.

The thought which stirred Palsgrave.

For thus have I thought to myself. Shall Fullonius an Hollander born, thus many hundred years after the decay of the Latin tongue by the Goths, Vandals and Longobards, three most barbarous nations, utterly corrupted, through the diligent observation of the pure Latin authors, be able to make so fine and so exact a piece of work: And I shall not be able at these years of mine age, to do so much, as to declare what he meaneth, in my native tongue? seeing that he (regard had to his country) can challenge no more propriety of the Latin tongue than I can, saving that through his great and industrious labor, he hath mastered the Latinity and forced it to serve him, to set forth to all clerks his intent and purpose.

What would reward Palsgrave.

I shall think myself not only very well sufficed, but also much fortunate, if this mine enterprise or at the least first setting on, may give occasion unto other your grace's well learned clerks, to fall in hand with such of the Latin authors, as in the judgment of all men be most excellent, and to this purpose most necessary and expedient. So that by their diligent labors may be made such an established marriage between the two tongues, as may be unto such of your grace's subjects,

as shall succeed hereafter, not only steady, agreed upon, and permanent, but also an incredible furtherance, to attain the pure Latinity by.

After apologising for his own imperfections, he still hopes this attempt may further good learning. Beyond this there are:

"*Six great and much vailable commodities*" *from* "*this thing.*"

1. If this kind of interpretation may take effect, and be put in execution, not only the speech of your grace's subjects should by that mean have a great advantage to wax uniform, throughout all your grace's dominions, but also the English tongue, which under your grace's prosperous reign is come to the highest perfection that ever hitherto it was, should by this occasion remain more steady and permanent in his endurance, not only by the well keeping of his perfection already obtained, but also have a great occasion to come to his most highest estate, and there, by that means long to be preserved.
2. After this, there should never be no utter ill schoolmasters within your grace's realm, for if such as would take upon them that office, were not better than their English interpretations, yet very shame would drive them, that they should not be worse, except they would stand in danger to be reproved of their own scholars, which if they were but young babes, yet might their parents easily control them, which might well enough perceive, what they did notably amiss.
3. Then should the willing scholars, which had already gotten their grammatical principles, be so evidently encouraged to go forward, that they should be great callers upon their fellows which by their negligence would drag, besides that the masters themselves should have no small provocation, to use for their own parties a good diligence, lest their scholars of their own mind should call for more of their author to be declared unto them, than perchance they had prepared to read unto them before: whereas now the scholars, be they never so well willing to be furthered, they have no manner remedy, but utterly and wholly to stay upon their master's mouth.
4. Then should all such as be already departed from the grammar schools, and afterward be taken with a repentance of their young time, negligently by them overpassed, which aforetime were forced to despair, though their wills afterwards waxed never so good, now by this means easily recover themselves again.
5. Then should young scholars, with small pains, engross the whole arguments of the Latin authors in their memory, whereas heretofore, after they have read the Latin authors in the school, they have not perceived what matter they entreated of: yea, and then their furtherance and speedy increase should be so notable, that with pleasure in manner, and with banishing of all servile rudeness out of grammar schools, they should sooner be able perfectly to go than they could aforetimes be able to creep.
6. When the schoolmasters, and also the scholars should by this means be eased in manner of three parts of their pains then should the masters have both time and better occasion, to open their farther learning, and to shew unto their scholars the great artifice used of the authors, in the composition of their works, which aforetime they had no such opportunity to do.

Palsgrave leaves the matter with the king—to advise whom is like showing "light to the shining sun."

Palsgrave also wrote *Lesclarcissement de la Langue Francoyse, compose par maistre Jehan Palsgraue Angloys, natyf de Londres et gradue de Paris*, in 1530.

Mr. Thompson Cooper, in Dict. Nat. Biog., account of Palsgrave (Vol. XLIII, p. 171), remarks that "the book was originally intended to be a kind of dictionary for the use of Englishmen seeking to acquire a knowledge of the French tongue," but that it has now a special value as one of the "best depositories of obsolete English words and phrases."

Dr. Furnivall has published (Lond., 1868) a copy of the Agreement between Palsgrave and his publisher, Richard Pynson; in the Indenture between them (second draft) it is agreed that—

the sayd Rycharde, his executors and assignes, shall Inprynt, or cause to be Inpryntyd, oñ boke callyd "lez les Clarcissmentt de la lange Francoys," contay[n]ing iii sondrye bokes, where in ys schewyd howe the saide tong schould be pronownsyd in reding & spekyng, and all-so syche gra*m*maticall rules as concerne

the perfection of the saide tong, with ii vocabulistes, oone begynnyng with Englishe nownes & verbes expowndyd in frenshe, and a general vocabulist contayning all the wordes off the frenshe tong expownd in Englishe.

WILLIAM LILY. 1468?-1522.

An Introduction of the eyght partes of speche, and the Construction of the same, compiled and sette forthe by the commaundement of our most gracious soverayne lorde the king. Anno 1542.

This is the earliest edition of Lily's Grammar which I have seen, containing the King's Proclamation.

The history of Lily's Grammar is very interesting. It has been sketched clearly and concisely by the Rev. J. H. Lupton, surmaster of S. Paul's School, in Notes and Queries, VI Series, Vol. II, pp. 441-2 and pp. 461-2, where its history is divided into three parts: (1) from its birth in 1509 until the Royal Proclamation about 1540; (2) from 1540 to the time when the Grammar was appropriated as the Eton Grammar; (3) from then to the present. The adoption of the Grammar as the authorized Latin Grammar, is paralleled only by the authorization of a particular rendering of the Scriptures. It is a cardinal point, about which centre the disputes of the progressive grammarians, as against the reactionary and conservative party which swore by Lily. The Proclamation and Address to the Reader may therefore be regarded as official documents which for good and evil bound down the recognized teaching of Latin for generations.

The following is the text of the Proclamation:

Henry the VIII. By the grace of God, King of England, France, and Ireland, defender of the faith, and of the Church of England, and also of Ireland, in earth the supreme head, to all schoolmasters and teachers of grammar within this his realm, greeting. Among the manifold business and most weighty affairs, appertaining to our regal authority and office, we forget not the tender babes, and the youth of our realm, whose good education and godly bringing up, is a great furniture to the same and cause of much goodness. And to the intent that hereafter they may the more readily and easily attain the rudiments of the Latin tongue, without the great hindrance, which heretofore hath been, through the diversity of grammars and teachings: we will and command, and straightly charge all you schoolmasters and teachers of grammar within this our realm, and other our dominions, as ye intend to avoid our displeasure, and have our favor, to teach and learn your scholars this English introduction, here ensuing, and the Latin Grammar annexed to the same, and none other, which we have caused for your ease and your scholars' speedy preferment briefly and plainly to be compiled and set forth. Fail not to apply your scholars in learning and godly education.

The Address to the Reader is as follows (in full). It is too interesting to omit it, both on account of the dignity of its English and the subject matter.

To the Reader.

Albeit this realm of England hath just cause to think itself most bounden to the goodness of God, for manifold and sundry benefits received of his inestimable bountifulness, yet if we will weigh the just value of things in an equal balance, as a certain wise philosopher did, which affirmed that realm to be most happy, whereas either a wise and a learned man had the rule, or the ruler applied himself to wisdom, and learning: we may perceive us Englishmen in nothing so fortunate, as in that we have a king and governor, both of excellent wisdom, learning and virtue, and also of great study and diligence to increase the same, whose kingly qualities, when they shall hereafter by such godly monuments, as his majesty shall leave behind him appear so plainly to his posterity, as we now presently see things, many of them already done, some in doing, and mo[re] shall see, which his majesty by the grace of God, intendeth hereafter to do: out of question all that have gone before him, may well appear but shadows. And to leave the large fields of his princely acts, wherein the wisest and best learned might walk till wit and eloquence were both weary, what constant judgment and what profound knowledge hath his majesty showed and declared to the world, in this variety of judgments and learnings, and what pains, study, and travail doth he take to bring things far out of square to a conformity, and to take good heed of Christ's

Church, to lead his flock into the fold of true doctrine the hurdles of the same so well underpight, that the wolves shall not be able to overthrow them. And as his majesty purposeth to establish his people in one consent and harmony of pure and true religion: so his tender goodness toward the youth and childhood of his realm, intendeth to have it brought up under one absolute and uniform sort of learning. For his majesty considering the great encumbrance and confusion of the young and tender wits, by reason of the diversity of grammar rules and teachings (for heretofore every master had his grammar, and every school divers teachings, and changing of masters and schools did many times utterly dull and undo good wits) hath appointed certain learned men, meet for such a purpose, to compile one brief, plain and uniform grammar, which only (all other set apart) for the more speediness, and less trouble of young wits, his highness hath commanded all schoolmasters and teachers of grammar within this his realm, and other his dominions, to teach his scholars.

Now consider you fathers in this realm, how much ye be bound to such a gracious King, whose care is not only for you, but for your posterity also, and your tender babes. And you schoolmasters of England, to whom the cure and education of tender youth is committed, with what great study and diligence ought you to follow the example of our most gracious sovereign; which among the infinite business, appertaining to his regal office, so earnestly mindeth the well bringing up of youth, in learning and virtue. How glad, how desirous ought you to be, not only to do this his grace's commandment, but also busily to apply yourselves, to trade and bring up your scholars in good manners, in knowledge of tongues and sciences. And somewhat to declare unto you the condition and quality of this grammar, ye shall understand, that the VIII parts of speech, and the construction of the same, be not here set forth in English at large, but compendiously and briefly, for the weak capacity of young and tender wits. And, therefore, if anything seemeth here to want in this English Introduction, ye shall understand, it was left out of purpose, and shall be supplied in the Latin rules made for the same intent, which children shall be apt to learn, what time they shall have competent understanding by these former rudiments. You tender babes of England, shake off slothfulness, set wantonness apart, apply your wits wholly to learning and virtue, whereby you may do your duty to God and your king, make glad your parents, profit yourselves, and much advance the commonweal of your country. Let noble prince Edward encourage your tender hearts, a prince of great towardness, a prince in whom God hath proved his graces abundantly, a prince framed of such perfectness of nature, that he is like by the grace of God, to ensue the steps of his father's wisdom, learning, and virtue, and is now almost in a readiness, to run in the same race of learning with you. For whom ye have great cause to pray that he may be the son of a long living father.

Learn diligently.
Love God entirely.

There is a further appeal to the scholar:

Ad Pubem Anglicam.
Hexasticon.

O tua parve puer non parva est gloria, Rex est
Commoda qui studiis prospicit ampla tuis.
Rex magnus tibi parve puer. Rex porrigit ultro
Dulcia nectareæ pocula grammaticæ.
Accipe munifici dulcissima pocula regis,
Hæc hauri, hæc avidis faucibus ebibito.

God save the King.

The Introduction closes with Lily's Carmen de Moribus and Erasmus's Christiani Hominis Institutio.

The Institutio Compendiaria totius Grammaticæ follows the Introduction. This gives etymology, syntax and prosody. It is prefixed by an address in Latin to schoolmasters and teachers of grammar, in England.

Comparatively few are familiar with the Preface I have quoted. The later Preface is, however, very well known. It dates back, at any rate, to the 1577 edition.

Charles Lamb's Description of the Later Preface.

With what a savor doth the Preface to Colet's, or (as it is sometimes called) Paul's Accidence, set forth! "To exhort every man to the learning of grammar,

that intendeth to attain the understanding of the tongues, wherein is contained a great treasury of wisdom and knowledge, it would seem but vain and lost labor; for so much as it is known, that nothing can surely be ended, whose beginning is either feeble or faulty; and no building be perfect whereas the foundation and ground-work is ready to fall, and unable to uphold the burden of the frame." How well doth this stately preamble (comparable to those which Milton commendeth as "having been the usage to prefix to some solemn law, then first promulgated by Solon or Lycurgus") correspond with and illustrate that pious zeal for conformity, expressed in a succeeding clause, which would fence about grammar-rules with the severity of faith-articles!—"as for the diversity of grammars, it is well profitably taken away by the Kings Majesties wisdom, who, foreseeing the inconvenience, and favourably providing the remedie, caused one kind of grammar by sundry learned men to be diligently drawn, and so to be set out, only everywhere to be taught, for the use of learners, and for avoiding the hurt in changing of schoolmaisters." What a *gusto* in that which follows: "wherein it is profitable that he [the pupil] can orderly decline his noun, and his verb." *His* noun!

The fine dream is fading away fast [adds Charles Lamb]: and the least concern of a teacher in the present day is to inculcate grammar-rules.[a]

Roger Ascham. 1515–1568.

Roger Ascham was born at Kirby Wiske, near Northallerton. His father was steward to Lord Scrope of Bolton. He was taught by his father, and also, in the family of Sir Anthony Wingfield, by R. Bond. In 1530 Roger Ascham entered S. John's College, Cambridge. Taught there by Fitzherbert, Robert Pember, Cheke, and Redman. In 1533 took degree of B. A., and same year was elected to a fellowship at S. John's College, at the suggestion of Dr. Metcalfe, master of S. John's. In 1537 took his M. A. In 1538 he was appointed Greek reader at S. John's. Applied for a mathematical lectureship, which he did not get. Wrote official letters for the University. Took part in discussions on pronunciation of Greek. As a recognition of his Toxophilus (1545) Henry VIII gave him a pension of £10 a year. In 1546 succeeded Cheke as public orator of the University. In 1548 he became tutor to Elizabeth at Chestnut. He resigned his post in 1549–50 and returned to Cambridge. In 1550 was appointed secretary to Sir Richard Morysin, English ambassador to Charles V. For two years he travelled abroad in Italy and Germany. In 1553 he was appointed Latin secretary to Queen Mary, for whom he wrote 47 letters to different people, of whom cardinals were the lowest in rank, within three days. He married Margaret Howe in 1554. In 1559 he became prebend of Wetwang in York Cathedral. Between 1563 and 1568 he was writing his Schoolmaster, which was published in 1570. His children were Giles, Sturm (called after his friend in Germany, to whom he wrote so much but whom he never saw), and Dudley.

There is an able essay on "Roger Ascham the Humanist" in Professor Laurie's Teachers' Guild Addresses.

In German, T. Holzamer has edited Der Schulmeister, mit einer Einleitung: Ascham's Leben und Wirken. Pichler, Wien, 1881.

Mr. Sidney Lee, whose article on Ascham, in the Dictionary of National Biography, is very careful and inclusive, thus speaks of Ascham: His "undoubted love of sport is an interesting trait: it distinguishes him from the over-diligent students of the Renaissance, with whom he has much in common. His letters show him to have shared much of their irritability, and more than their customary freedom in demanding money of their patrons. But his treatment of his wife, of friends like Cheke and Sturm, and of his pupils, wholly relieves him of the charge of undue selfishness."

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[a] Essays of Elia, "The Old and New Schoolmaster" (Ed. by Ainger, 1884), pp. 71-2. This essay first appeared in the London Magazine, May, 1821.

The following are the chief lives of Ascham:

1. Oratio de Vita et Obitu Rogeri Aschami, by Edward Grant, 1576.
2. Dr. Johnson's Life of Ascham, prefixed to Bennet's collected edition of Ascham's works, 1761.
3. Hartley Coleridge's Life of Ascham, in Worthies of Yorkshire and Lancashire, reprinted in Prof. Mayor's edition of the Schoolmaster.
4. Alfred Katterfeld. Roger Ascham. Sein Leben und seine Werke. Mit besonderer Berücksichtigung seiner Berichte über Deutschland aus den Jahren 1550-1553. pp. XI, 369. Strassburg, 1879.

The most important materials for the life of Ascham may be found in the Letters, of which the most complete edition is included in: The Whole Works of Roger Ascham, Now First Collected and Revised, with a Life of the Author; by the Rev. Dr. Giles. London. 1864. 4 vols.

In the 1863 edition of the Schoolmaster, Prof J. E. B. Mayor (pp. 268–280) quotes Testimonies as to Roger Ascham—from Leland, Walter Haddon, Bale, Sir Thomas Smith, Geo. Buchanan, Queen Elizabeth, Dean Nowell, E. Grant, Walter Barker, Gabriel Harvey, Thomas Wilson, Richard Mulcaster, R. Robinson, Pilkington, J. Swan, Camden, T. Nash, Thuanus, Bacon, Gabr. Naudæus, Thomas Fuller, Teissier (Eloges des Hommes Savans, iii, 197), Morhof, and Charles Schmidt (La vie et les travaux de Jean Sturm. 1855).

Mr R. H. Quick mentions in his account of Mulcaster, in the Appendix to his reprint of the Positions, the interesting fact that in Prof. Arber's Transcript of the Registers of the Company of Stationers of London, 1554–1640 (vol. ii, p. 178b), is the following entry:

Thomas Chare sub manu Episcopi Londinii. Sexto die Marcii (1581) Receaved of him for his license to printe *positions* [i. e., Positions, the name of Mulcaster's book] whereupon the trayning up of children and so consequentlie the wholle course of learninge ys grounded * * * xvi d. Provyded alwaies that yf this booke conteine any thinge prejudiciall or hurtfull to the booke of maister ASKHAM that was printed by master Daie called the Scholemayster, That then this lycense shal be voyd.

The following is a list of Roger Ascham's works:

1. Toxophilus, 1545.
2. A report or Discourse written by Roger Ascham of the Affaires and State of Germany and the Emperour Charles his court, duryng certain years while the sayd Roger Ascham was there. 1553.
3. The schoolmaster. 1570.
4. Ascham also wrote three Latin treatises, but they have no bearing on the subject of education: 1. Commentary by Æcomenius on Epistles of Paul to Titus and Philemon. 2. Apology for the Lord's Supper against the Mass. 3. A letter to J. Sturm, De Nobilitate Anglicana. Ascham also wrote a few Latin poems.
5. Ascham's Letters.
   (1) Edited by Edward Grant, 1576. 8°. Also 1578, 1581, 1590. There are three foreign editions: Hanover, 1602, 1610, and Coloniæ Allobrogum, 1611. 12mo.
   (2) Edited by Elstob, 1703. 8vo.
   (3) Edited by J. G. Cochrane, 1815.
   (4) Edited by Dr. Giles (Whole Works of Roger Ascham, 3 vols., 1865). Contains 295 of Ascham's letters, 40 of which were first published by Dr. Giles.

Ascham (Roger).

Toxophilus. The schole of shootinge conteyned in two bookes. To all gentlemen and yomen of Englande, pleasaunte for theyr pastyme to rede, and profitable for theyr use to follow, both in war and peace. B. L. In ædibus Edouardi Whytechurch, Londini, 1545. 4to.

The Toxophilus, properly, belongs rather to English literature than to educational history. Mr. Henry Craik says (English Prose Selections, Vol. 1, p. 268): "The Toxophilus is a dialogue, inculcating the necessity of cultivating the art of archery as an exercise at once pleasant and patriotic. But its real object is to show the learning of the author, and his power of managing a dialogue in the Platonic manner." Yet there are two reasons for which it deserves to be treated on the educational side. Firstly, the genuine enthusiasm Ascham shows along with Sir T. Elyot and Richard Mulcaster for the use of the English language in speaking to English people. Secondly, his advocacy of physical exercise.

If Ascham is named with Elyot and Mulcaster, it must be at once added that neither of the two had the quaint and charming simplicity of style which so characterizes Ascham. The following two passages will serve to illustrate his attitude as a scholar to the English language and his style in the use of it.

And although to have written this book either in Latin or Greek (which thing I would be very glad yet to do, if I might surely know your Grace's pleasure therein), had been more easy and fit for my trade in study; yet nevertheless, I, supposing it no point of honesty, that my commodity should stop and hinder any part either of the pleasure or profit of many, have written this English matter in the English tongue, for Englishmen: wherein this I trust that your Grace (if it shall please your Highness to read it) shall perceive it be a thing honest for me to write, pleasant for some to read, and profitable for many to follow; containing a pastime honest for the mind, wholesome for the body, fit for every man, vile for no man, using the day and open place for honesty to rule it: not lurking in corners for misorder to abuse it. Therefore I trust it shall appear to be both a sure token of my zeal to set forward shooting, and sure sign of my mind towards honesty and learning.

The second passage is an excellent specimen of Ascham's writing.

If any man would blame me, either for taking such a matter in hand, or else for writing it in the English tongue, this answer I may make him, that when the best of the realm think it honest for them to use, I, one of the meanest sort, ought not to suppose it vile for me to write; and though to have written it in another tongue, had been both more profitable for my study, and also more honest [honorable] for my name, yet I can think my labor well bestowed, if with a little hinderance of my profit and name, may come any furtherance to the pleasure or commodity of the gentlemen and yeomen of England, for whose sake I took this matter in hand. And as for the Latin or Greek tongue, everything is so excellently done in them, that none can do better: in the English tongue, contrary, everything in a manner so meanly both for the matter and handling, that no man can do worse. For therein the least learned, for the most part, have been always most ready to write. And they which had least hope in Latin, have been most bold in English: when surely every man that is most ready to talk is not most able to write. He that will write well in any tongue, must follow this counsel of Aristotle, to speak as the common people do, to think as wise men do: and so should every man understand him, and the judgment of wise men allow him. Many English writers have not done so, but using strange words, as Latin, French, and Italian, do make all things dark and hard.

The following passage advocates archery from the point of view of physical exercise for the student.

Then seeing pastimes be lawful, the most fittest for learning is to be sought for. A pastime, saith Aristotle, must be like a medicine. Medicines stand by contraries; therefore, the nature of studying considered, the fittest pastime shall soon appear. In study every part of the body is idle, which thing causeth gross and cold humors to gather together and vex scholars very much, the mind is altogether bent and set on work; a pastime then must be had where every part of the body

must be labored to separate and lessen such humors withal, the mind must be unbent, to gather and fetch again his quickness withal. * * * If a scholar should use bowls or tennis, the labor is so vehement and unequal, which is condemned of Galen; the example very ill for other men, when by so many acts they be made unlawful. Running, leaping and quoiting be too vile for scholars and so not fit by Aristotle's judgment; walking alone into the field hath no token of courage in it, a pastime like a simple man which is neither flesh nor fish. Therefore if a man would have a pastime wholesome and equal for every part of the body, pleasant and full of courage for the mind, not vile and unhonest to give ill example to laymen, not kept in gardens and corners, not lurking on the night and in holes, but evermore in the face of men, either to rebuke it when it doeth ill, or else to testify on it when it doeth well; let him seek chiefly of all other for shooting.

There is the following to attract the learned:

I marvel that you do not remember how that the nine Muses their self, as soon as they were born, were put to nurse to a lady called Euphemis, which had a son named Erotus, with whom the nine Muses, for his excellent shooting, kept evermore company withal, and used daily to shoot together in the Mount Parnassus; and at last it chanced this Erotus to die, whose death the Muses lamented greatly, and fell all upon their knees afore Jupiter their father, and, at their request, Erotus, for shooting with the Muses on earth, was made a sign [constellation] and called Sagittarius in heaven. Therefore you see that if Apollo and the Muses either were examples indeed, or only feigned of wise men to be examples of learning, honest shooting may well enough be companion with honest study.

Richard Mulcaster in his Positions contrasts Archery and Hunting to the advantage of the former, and it may be worth while here quoting a short passage (Quick's Reprint of the Positions, p. 102):

[Archery] hath a great deal better place in our fields for welfare [than hunting] and therefore the more, because it consisteth both of the best exercises, and the best effects of the best exercises. For he that shooteth in the free and open fields may choose, whether between his marks he will run or walk, dance or leap, hallo or sing, or do somewhat else, which belongeth to the other, either vehement or gentle exercises * * * This exercise [of Archery] do I like best generally * * * upon the causes before alleged, which if I did not, that worthy man our late and learned countryman master Askam would be half angry with me, though he were of a mild disposition, who both for training the Archer to his bow, and the scholar to his book, hath showed himself a cunning Archer and a skilful master.

The Toxophilus is in the form of a dialogue between Philologus and Toxophilus. By Philologus probably Ascham had Sir John Cheke in his mind, and, of course, Toxophilus is himself.

The following are the "Tables," or contents, of the two books into which the Toxophilus is divided.

Book I.

Earnest business ought to be refreshed with honest pastime. Shooting most honest pastime. The invention of shooting. Shooting fit for princes and great men. Shooting fit for scholars and students. Shooting fitter for students than any music or instruments. Youth ought to learn to sing. No manner of man doth or can use too much shooting. Against unlawful games, and namely cards and dice. Shooting in war. Obedience the best property of a soldier. Reasons and authorities against shooting in war, with the confutation of the same. God is pleased with strong weapons and valiant feats of war. The commodity of shooting in war through the histories Greek and Latin, and all nations Christian and Heathen. Use of shooting at home causeth strong shooting in war. Use of shooting at home, except men be apt by nature, and cunning by teaching, doth little good at all. Lack of learning to shoot causeth England lack many a good archer. In learning anything, a man must covet to be best, or else he shall never attain to be mean.

Book II.

By knowing things belonging to Shooting	Proper for every sere man's use	Bracer.
		Shooting-glove.
		String.
		Bow.
		Shafts.
	General to all men	Weather.
		Mark.
Hitting the mark by	Shooting straight	Both come partly.
	Keeping a length	
By handling things belonging to shooting	Without a man	Standing.
		Nocking.
		Drawing.
		Holding.
		Loosing.
	Within a man	Bold Courage.
		Avoiding all affection.

Of Archery Mulcaster said:

That it is a thing to be beloved, and liked, what argument is there that can be alleadged of comparable power to that of Cupide himselfe, which in the matter of love, doth bend with his bow, and enamour with his arrow?—Positions (Quick's Reprint), p. 101.

Other books on Archery were:

Richard Robinson.

The Auncient Order, Society and Unitie Laudable of Prince Arthure, and his Knightly Armory of the Round Table; with a Threefold Assertion friendly in favour and furtherance of English Archery at this day. Translated and collected by R. R. Lond. 1583. 4to.

Smith, Sir John.

Certain Discourses concerning the Formes and Effects of divers sorts of Weapons, and other very important matters militarie, greatlye mistaken by divers of our men of warre in these daies; and chiefly of the Musquet, the Caliver, and the Long Bow; as also of the great sufficiencie, excellencie and wonderfull effects of Archer: with many notable examples and other particularities (by the author) presented to the Nobilitie of this realme, and published for the benefite of this his native countrey of England. Lond. 1590. 4to.

Gervase Markham.

The Art of Archery. 1634. 8vo.

Ascham (Roger).

The Scholemaster Or plaine and perfite way of teachyng children, to understand, write, and speake, the Latin tong, but specially purposed for the private bryngyng up of youth in Ientlemen and Noble mens houses etc. B. L. J. Daye, London, 1570. 4to. 1571, 1572, 1573, 1579, 1589.

Later Reprints:

1. by the Rev. James Upton, 1711, 1743.
2. by the Rev. J. E. B. Mayor, with notes, 1863.
3. by Professor Arber, 1870.
4. by I. Holzamer. (Introduction, translation into German, and commentary.) Wien, 1881.

Dedicated by Roger Ascham's widow, by whom it was sent to the press two years after Ascham's death, to Sir Wm. Cecil, principal secretary of state to Queen Elizabeth.

The origin of the Scholemaster.

In the Preface, Ascham gives an interesting account of the occasion on which the idea of writing the Scholemaster suggested itself to him. In 1563, during the time of a plague in London, a number of people met at the chamber of Sir Wm. Cecil at Windsor, to dine. The Company included Sir Wm. Cecil, Sir Wm. Peter, Sir J. Mason, D. Wotton, Sir Rd. Sackville, Sir Walter Mildmay, Mr. Haddon, Mr. John Astley, Mr. Bernard Hampton, Mr. Nicasius and Roger Ascham. The conversation turned to the news that several scholars of Eton College had run away,

for fear of beating. The several speakers gave their views as to the beating of boys, and Mr. Wotton gave utterance to an opinion very acceptable to Ascham, when he said that the schoolhouse should be in deed, as it is called by name, "the house of play and pleasure, and not of fear and bondage." After dinner Sir Rd. Sackville had a conversation with Ascham, and stated how before he was fully fourteen years old his schoolmaster drove him "with fear of beating from all love of learning." Recognising the great deprivation he had suffered, he expressed his determination that he would make his "mishap some occasion of good hap" to his grandson, Robert Sackville. Accordingly, he asks Ascham to point him out a schoolmaster who should put into practice sound and gentle principles of instruction. Ascham produces, accordingly, a literary schoolmaster.

The chief points of the book.

Ascham summarizes the first of the two books into which the Scholemaster is divided, in the following paragraph:

> We had then further talk together of bringing up of children: of the nature of quick and hard wits: of the right choice of a good wit: of fear and love in teaching children. We passed from children and came to young men, viz., gentlemen: we talked of their too much liberty, to live as they lust: of their letting loose too soon to overmuch experience of ill, contrary to the good order of many good old commonwealths of the Persians and Greeks: of wit gathered, and good fortune gotten by some only by experience, without learning. And, lastly, he required of me very earnestly to show what I thought of the common going of Englishmen into Italy.

Ascham pleaded that he lacked ability to do all this, but Rd. Sackville would not be put off. "Seeing," said he, "God did so bless you, to make you the Scholar of the best Master (Sir John Cheke) and also the Schoolmaster of the best Scholar (Queen Elizabeth) that ever were in our time, surely you should please God, benefit your country, and honest [honor] your own name, if you would take the pains, to impart to others, what you learned of such a Master, and how ye taught such a Scholar."

As to the details of the Scholemaster it is impossible to give a full account. The book is, happily, easily accessible. It has its own quaint, spontaneous, literary flavor. It introduces the reader to educational ideas, to the literary spirit of an age, to the personal friends of the author, and to the friendly author himself.

There are certain points and passages which, even in the briefest of descriptions, it would be difficult to pass by.

Ascham's "three books."

In teaching Latin and Greek, Ascham requires the schoolmaster to state to the pupil, cheerfully and plainly, the cause and matter of the text. He must then construe it to the pupil, in English, so often as is necessary for the pupil to easily carry away the understanding of it. Then he must parse it all through. After an interval, the pupil is to construe and parse it back to the teacher and to be thoroughly examined.

I. There is an exercise-book to be given to the pupil, and sitting in some place, where no man shall prompt him, let him translate into English his former lesson. This is to be carefully corrected by the teacher.

II. After an hour's pause, the pupil must take another exercise and translate his own English into Latin again. The master must then go over it with the pupil and compare it with the original (Sturm's edition of Cicero for children is recommended for beginners by Ascham). "Where the child doth well, either in choosing or true placing of Tullie's words, let the master praise him and say: Here ye do well * * * . If the child miss, * * * the master shall have

good occasion to say unto him: N. Tullie would have used such a word, not this: Tullie would have placed this word here, not there: would have used this case, this number, this person, this degree, this gender; he would have used this mood, this tense, this simple rather than this compound: this adverb here, not there: He would have ended the sentence with this verb, not with that noun or participle."

III. Following on Sturm's practice, Ascham requires a commonplace book in which to enter the results of the pupil's observations and comparisons. He is especially to be on the look-out for:

1. *Proprium*, that which is literal, e. g.: Rex sepultus est magnifice.
2. *Translatum*, that which is metaphorical, e. g.: Cum illo principe, sepulta est et gloria et salus reipublicæ.
3. *Synonyma*, e. g.: Ensis, gladius; laudare, prædicare.
4. *Diversa*, e. g.: Diligere, amare; calere, exardescere; inimicus, hostis.
5. *Contraria*, e. g.: Dulcis et læta pax; acerbum et luctuosum bellum.
6. *Phrases*, e. g.: Dare verba; abjicere obedientiam.

The system of notebooks suggested by Ascham has been much praised, and seems to be in accord with the modern principle of requiring the self-activity of the pupil.

Horsemen and schoolmasters.

This is a famous passage showing the esteem (or rather lack of it) for schoolmasters in Ascham's time.

And it is pity, that commonly, more care is had, yea and that amongst very wise men, to find out rather a cunning man for their horse, than a cunning man for their children * * *. To the one, they will gladly give a stipend of 200 crowns by year, and loth to offer to the other, 200 shillings. God, that sitteth in heaven, laugheth their choice to scorn, and rewardeth their liberality as it should: for he suffereth them, to have tame and well-ordered horse but wild and unfortunate children: and therefore in the end they find more pleasure in their horse, than comfort in their children.

The Choice of wits.

By this expression is meant the particular characteristics in children which warrant an expectation that they will become good students. There are "seven plain notes" which are that the child should be (Ascham follows Plato: Republic, Bk. vii):

1. *Εὐφυής*, sound in tongue, voice, face, stature.
2. *Μνήμων*, good of memory.
3. *Φιλομαθής*, given to love learning.
4. *Φιλόπονος*, having a lust to labor.
5. *Φιλήκοος*, glad to hear and learn of another.
6. *Ζητητικός*, bold to ask questions.
7. *Φιλέπαινος*, loveth to be praised for well-doing.

As the child is used, so will he (or she) be.

The well known passage about the teaching of Lady Jane Grey, "An example which may be heard with some pleasure, and followed with more profit," is as follows:

Before I went into Germany, I came to Brodegate [Bradgate], in Leicestershire, to take my leave of that noble Lady Jane Gray * * *. I found her in her Chamber, reading Phaedon Platonis in Greek, and that with as much delight as some gentleman would read a merry tale in Bocase [Boccaccio]. * * * I asked her why she would lose such pastime in the Park? smiling she answered me: I wisse, all their sport in the Park is but a shadow to that pleasure, that I find in Plato: Alas good folk, they never felt, what true pleasure meant. And how came you Madam, quoth I, to this deep knowledge of pleasure, and what did chiefly allure you unto it: seeing not many women, but very few men have attained thereunto? I will tell you, quoth she, and tell you a truth, which perchance ye will marvel at. One of the greatest benefits, that ever God gave me

is, that he sent me so sharp and severe parents, and so gentle a scholemaster. For when I am in presence either of father or mother, whether I speak, keep silence, sit, stand, or go, eat, drink, be merry or sad, be sewing, playing, dancing or doing anything else, I must do it, as it were, in such weight, measure and number, even so perfectly, as God made the world, or else I am so sharply taunted, so cruelly threatened, yea presently sometimes, with pinches, nips and bobs, and other ways * * * so without measure misordered, that I think myself in hell till time come that I must go to M. Elmer [Aylmer] who teacheth me so gently, so pleasantly, with such fair allurements to learning, that I think all the time nothing, whiles I am with him * * * I remember this talk gladly, both because it is so worthy of memory, and because also it was the last talk that ever I had, and the last time, that ever I saw that noble and worthy lady.

Learning contrasted with experience.

Learning teacheth more in one year than experience in twenty: And learning teacheth safely, when experience maketh mo[re] miserable than wise. He hasardeth sore that waxeth wise by experience. An unhappy Master he is, that is made cunning by many shipwrecks: A miserable merchant, that is neither rich nor wise but after some bankrupt[cies]. It is costly wisdom that is bought by experience.

It should be added that the passages in which Ascham speaks of "Englishmen Italianated" are written *de plein cœur* with a ready hatred of Rome, all the fiercer for Ascham's self-enforced silence during Mary's reign.

An example for the court to follow.

It is to your shame (I speak to you all, you young gentlemen of England) that one maid should go beyond you all, in excellency of learning, and knowledge of divers tongues. Point forth six of the best given Gentlemen of this Court, and all they together, show not so much good will, spend not so much time, bestow not so many hours, daily, orderly, and constantly, for the increase of learning and knowledge, as doth the Queen's Majesty herself. Yea, I believe, that beside her perfect readiness in Latin, Italian, French and Spanish, she readeth here now at Windsor more Greek every day than some Prebendary of this Church doth read Latin in a whole week.

It is interesting to compare with this a quotation from the well-known panegyric on Queen Elizabeth in Mulcaster's Positions (Quick's Reprint, pp. 172–3):

That young maidens can learn, nature doth give them, and that they have learned, our experience doth teach us, with what care to themselves, themselves can best witness, with what comfort to us, what foreign example can more assure the world than our diamond at home? our most dear sovereign lady and princess, by nature a woman, by virtue a worthy, not one of the nine, but the tenth above the nine, to perfect in her person that absolute number, which is no fitter to comprehend all absoluteness in Arithmetic than she is known to contain all perfections in nature, all degrees in value and to become a precedent.

These examples excellently illustrate the style of Ascham and of Mulcaster. In Ascham, as Mr Craik points out, there is an "almost pedantic simplicity of style amounting often to uncouthness", whilst in Mulcaster there is a self-conscious pomposity of which he is so proud that he says in one place, speaking of the excellences of the English language, "I need no example in any of these, whereof my own penning is a general pattern." (Quoted in Mr Quick's charming Appendix to the Reprint of the Positions, p. 306.)

As to the question of Elizabeth's attainments, see Ballard's Memoirs of British Ladies (1775), pp. 147–170.

Book II. "The ready way to the Latin tongue."

Ascham repeats his Method of the Three Books. He describes it in detail, and states his satisfaction in the use of it with a pupil of his own, by name John Whitney, a young man of promise. Whitney died after Ascham had only taught him a short time, and Ascham wrote to his memory some verses in "misorderly metre", which he includes in the Scholemaster.

"*The six ways of learning tongues*" [*languages*].

These are given as—

1. Translatio linguarum.
2. Paraphrasis.
3. Metaphrasis.
4. Epitome.
5. Imitatio.
6. Declamatio.

As to translation, Ascham once more insists on double translation.

Paraphrasis is "to strive and contend (as Quintilian saith) to translate the best Latin authors into other Latin words, as many or thereabouts." This method, Ascham urges, is not for the scholar, but with a spice of sarcasm he suggests may be left to a perfect master. Double translation is far better.

Metaphrasis is to change a passage out of verse into prose or into some other kind of meter. Good method for "ripe heads." For in it, the "mind must needs be very attentive and busily occupied, in turning and tossing itself many ways. * * * But this harm may soon come thereby, * * * to young scholars, that in seeking other words and new form of sentences, they chance upon the worse."

Epitome is good for private use. But to use other men's epitomes of authors is a "silly poor kind of study." There is, however, for advanced students a use as well as misuse.

Imitation is "a faculty to express lively and perfectly that example, which ye go about to follow * * *. To our purpose all languages, both learned and mother tongues, be gotten and gotten only by Imitation."

The "necessary tools and instruments" of Imitation.

"Which tools, I openly confess, be not of mine own forging, but partly left unto me by the cunningest Master and one of the worthiest gentlemen that ever England bred, Sir John Cheke." These are to be discovered as follows: by teaching—in the study of Cicero compared with Demosthenes, or Homer compared with Virgil.

1. Cicero retaineth thus much of the matter, these sentences, these words.
2. This and that he leaveth out, which he doth wittily to this end and purpose.
3. This he addeth here.
4. This he diminisheth there.
5. This he ordereth thus, with placing that here, not there.
6. This he altereth and changeth, either in property of words, in form of sentence, in substance of the matter, or in one or other, convenient circumstance of the author's present purpose.

Is one model only to be followed in Imitation, or must all authors be imitated?

Ascham's answer is: In every separate kind of learning and study follow a few and chiefly some one. He then discusses models according to the divisions in Genus: Poeticum, Historicum, Philosophicum, Oratorium, and their subdivisions.

Of all the Latin writers, he judges Varro, Sallust, Cæsar, and Cicero to be the authors to whom, for the purpose of Imitation, the young scholar should give heed. This section Ascham has not finished, and the promised treatment of Declamation is omitted, so that the Scholemaster as we have it is probably not completely in the form in which Ascham left it for publication.

To this account of the Scholemaster I ought to add that Ascham speaks in it of two projected books:

i. (Mayor's ed. 1884, p. 117.)

But of all kind of pastimes fit for a Gentleman, I will, God willing, in fitter place, more at large, declare fully, in my *book of the Cockpit*.

ii. (Mayor's ed. 1884, p. 197.)

And by God's grace, if God do lend me life, with health, free leisure and liberty, with good liking and a merry heart, I will turn the best part of my study and time, to toil in one or other piece of this work of Imitation.

THOMAS BECON. 1512–1567.

Educated at Cambridge (S. John's College.) B. A. in 1530. His first living was at Brenzett, near Romney, in Kent. He had to abjure his opinions at S. Paul's Cross 1543, having gone too far in declaration of the Reformation. He retired to the Peak of Derbyshire with a view to taking pupils. He returned, in a year, to Warwickshire. He was next in Leicestershire. In all these parts he earned a living "in a lonely way by his teaching of youths." In 1547 (in Edward VI's reign) he was made rector of S. Stephen, Walbrook. On the death of Edward VI Becon was committed to the Tower. On his release, he retired to Strasburg. Wrote under name of Theodore Basil. In 1560, after the accession of Elizabeth, Becon became rector of Buchlank in Hertfordshire. He was also appointed to Christ Church, Newgate St., and later to the rectory of St. Dionis, Backchurch. He was a friend of Hugh Latimer. For further account see Ayre's Biographical Notice, prefixed to the Parker Society's reprint of Becon's Works, and the notice in the Dictionary of National Biography.

A New Catechisme sette forth dialoge-wise in familiar talke betwene the father and the son, lately made and now fyrst of all published. n. d. John Daye.

In the section "Offices of all Degrees" is "Of the Schoolmaster."

The importance and nature of the good Schoolmaster.

Through the schoolmaster the youth of the Christian commonweal is brought up in the knowledge of God and of his holy word, and also in the science of good letters and virtuous manners; and so trained up in them from their very cradles, that as they grow in age, so likewise they increase in godliness, virtue, learning, knowledge, good manners, and innocency of life; and afterward become the faithful servants of God, and profitable members of the commonweal, yea, and good citizens of the country where they inhabit. Therefore those rulers and magistrates in whose power it is to choose and appoint schoolmasters, ought above all things to take heed that they elect and ordain such schoolmasters, such teachers and instructors of the Christian youth, as unfeignedly and from the very bottom of the heart fear God, love his word, embrace his religion, tender the glory of God, wish the increase of true godliness in all persons, are learned, are virtuous, in their life and conversation, desire well to the Christian public weal, and above all things think how best to profit, further, advance, promote and set forward the youth committed to their charge in all godliness, learning, knowledge and virtue.

Becon then insists on the *bringing up of children in Christian doctrine:*

A godly and diligent schoolmaster shall gather such flowers out of the holy bible for his scholars, from time to time, as occasion shall serve, with the sweet and strong savor whereof they may repel and put away the pestiferous and mortal odors of the errors and heresies, not only of the papists, but also of all other sectaries.

And then, the schoolmaster's duty is "to teach good letters," not as mates, but as handmaids of God's Word.

[Teach] poets, orators, historiographers, philosophers, etc., not that they should be mates with God's word, but rather handmaids unto it, and serve to set forth the honor and glory thereof. For unto this end ought all liberal sciences to be studied and learned even that they might not depress, but advance, the true religion of God. For eloquence without godliness is as a ring in a swine's snout; yea, all arts and sciences, not coupled with the love of religion, are rather instruments of wickedness than of godliness; and, as Tully saith, "To give to a lewd man eloquence without wisdom is none other thing than to give unto him armors to destroy the commonweal."

The choice of classical authors.

But, in reading these kinds of authors to his disciples, the schoolmaster must diligently take heed that he read those only to his scholars that be most profitable, and contain in them no matter that may either hinder the religion of God or the innocency of manners. Some writers in many places of their works are wanton and unhonest, as Martialis, Catullus, Tibullus, Propertius, Cornelius Gallus, and such-like; some wicked and ungodly, as Lucianus, etc. From the reading of these and such-like filthy writers, [it] is convenient that the youth do abstain: lest by the reading of them they make shipwreck both of their faith and manners and in their tender years drink in such corruption as shall be noisome unto them all their life after. For, as he saith: "Evil words corrupt good manners."

Care of the heathen for innocency of life.

The very heathen were so ware and circumspect in the virtuous and honest bringing up of their youth, that they by no means would suffer the breasts of their children to be infected with the reading of unclean and wanton writers, although never so wise, learned, and eloquent. Read we not that the Lacedæmonians commanded that the books of the poet Archilochus should be carried out of their city, because they entreated of vain, foolish, light, wanton and trifling matters; and that they by no means would suffer their children to read them, lest by the reading of them they should get more hurt to their manners than profit to their wits? They esteemed eloquence nothing in comparison of virtue and honesty. Eloquence is to be embraced, but not with the loss of virtue. All things ought to give place to virtue and innocency of life. Plato, that most divine and noble philosopher, also expelled all poets out of his commonweal, as persons occupied about vain, false, lying and wanton matters, unworthy to be read of such as tender the avancement of virtue.

The case of Ovid.

Was not the poet Ovidius banished of Augustus Cæsar for the books which he made De Arte Amandi (he might more justly have termed them De Arte Meretricandi, because that through the reading of them he corrupted the minds of the youth); yea, and so banished, that he could never after obtain favor to return into his country, notwithstanding the making of his books to the contrary, De Remedio Amoris; but after his long and miserable banishment and life among the barbarous and rude Getians, most miserably perished and died in that most savage and wild country? A punishment worthy of such fact. If the wise heathen thought it a thing unfitting to have their youth corrupted with the reading of vain and wanton books, and therefore banished both them and their authors out of their cities: how much more ought the Christians to be ware and circumspect, that nothing be read to their youth that may infect them with any lewdness, or work corruption either to their faith or to their manners!

After insisting that the godly and honest schoolmaster must not only teach "good and godly things," but must also practice them, Becon turns to the question of:

Corporal punishment.

[The schoolmaster] must consider the nature of his scholars. Some be so gentle and corrigible, that words may seem abundantly to suffice, and that without stripes. Some are so stubborn, stiff-necked, and almost incorrigible, that to bring them into the way, and to make them to prosper in their studies, there is need not only of words but also of stripes. The children, which either are tender, or tender witted, or fearful, or easy to be reclaimed, the schoolmaster ought gently to entreat, and to rebuke them only with words, or at the least, if they offend oft, to administer unto them easy punishment. But those children which are negligent, froward, stubborn, and rather given to play than to studies, yea, and that of set purpose, the master ought not only with words sharply to reprove them, but also with stripes largely to chastise them. Notwithstanding, in all punishments a measure is to be observed, lest through too much severity wits rather be dulled than quickened, studies rather oppressed than excited, and learning rather hated than embraced.

In the Catechism, in the discussion as to the duties of "Old Women," Becon points out that though women must not "teach in the congregation openly," yet "it is lawful for old and ancient matrons to teach." They may teach "young women to be soberminded, to love their husbands, to love their children, to be

discreet, chaste, housewifely, good, obedient to their husbands." So says the son. Wherefore the father says:

What should women teach?

I looked that thou shouldst have said unto me, that the ancient matrons should teach the young women trimly to dance, minionly to play upon the lute or virginals, cunningly to work with the needle, finely to apparel themselves, handsomely to play the serving-maids, pleasantly to entertain strangers, younkers and gentlemen, etc.

Son. These be things of vanity, rather provoking unto lewdness than unto virtue, heretofore abhorred and hated of all modest and sober women. The works and qualities, which St. Paul here setteth forth, that the ancient matrons should teach the young women, are necessary works and godly qualities. Can any thing be more necessary or godly in a Christian commonweal, than to bring up maids and young women virtuously, and to teach them "to be sober-minded, to love their husbands, to love their children, to be discreet, chaste, housewifely, good, obedient to their husbands, etc."

Public schools for girls should be set up.

To bring this thing to pass, it is expedient that by public authority schools for women-children be erected and set up in every Christian commonweal, and honest, sage, wise, discreet, sober, grave, and learned matrons made rulers and mistresses of the same, and that honest and liberal stipends be appointed for the said schoolmistresses, which shall travail in the bringing up of young maids, that by this means they may be occasioned the more gladly and willingly to take pains.

The need for girls' schools.

If it be thought convenient, as it is most convenient, that schools should be erected and set up for the right education and bringing up of the youth of the male kind, why should it not be thought convenient that schools be built for the godly institution and virtuous bringing up of the youth of the female kind? Is not the woman the creature of God as well as the man, and as dear unto God as the man? Is not the woman a necessary member of the commonweal? have not we all our beginning of her? are not we born, nursed, and brought up of a woman? Do not the children for the most part prove even such as the mothers are of whom they come? Can the mothers bring up their children virtuously, when they themselves be void of all virtue? Can the nurses instil any goodness into the tender breasts of their nurse-children, when they themselves have learned none? Can that woman govern her house godly which knoweth not one point of godliness? Who seeth not now then, how necessary the virtuous education and bringing-up of the woman-kind is? Which thing cannot be conveniently brought to pass, except schools for that purpose be appointed, and certain godly matrons ordained governesses of the same, to bring up the maids and young women in the doctrine and nurture of the Lord. And verily, in my judgment, they do no less deserve well of the Christian commonweal, that found and stablish schools with honest stipends for the education and bringing up of the women-children in godliness and virtue than they which erect and set up schools for the instruction of the men-children in good letters and godly manners.

This is the strongest expression of opinion as to the necessity of girls' education in schools, which I have seen in the Tudor period, and is comparable with the passage in J. A. Comenius on the subject. See Keatinge's translation of the Great Didactic, p. 220.

Sir Thomas More. 1478–1535.

Sir Thomas More (born in 1478) was sent to S. Anthony's Free School, Threadneedle St., under Holt, the author of the Latin grammar, Lac Puerorum. Then entered the house of Cardinal Morton, who pronounced: "This child here waiting at the table, whoever shall live to see it, will prove a marvellous man." In 1492 More was sent to Oxford, probably to Canterbury Hall, afterwards included in Christ Church foundation. Learnt Greek from Linacre. He studied also Latin, French, music, arithmetic, geometry, and history. In 1494 More entered New Inn; in 1496, Lincoln's Inn. In 1501 he was called to the bar; in 1504 entered Parliament. In 1505 married Jane Colt, who died in 1510. The same year he married Alice Middleton. In 1511 he became reader in Lincoln's Inn. Employed

on embassies, to Flanders in 1515, to Calais in 1517. In 1518 became a privy councillor, and in 1520 was present at the Field of Cloth of Gold. In 1523 he went to live at Chelsea, and same year was made Speaker of the House of Commons. In 1529 he became lord high chancellor. In 1532 he resigned. In 1534, refused the oath to Act of Succession. In 1535, put to death.

The latest life of More is that of Father Bridgett:

Life and Writings of Sir Thomas More, Lord Chancellor of England and Martyr under Henry VIII, by the Rev. T. E. Bridgett of the Congregation of the Most Holy Redeemer. London: Burns & Oates. New York: Catholic Publication Soc. Co. 1891.

This is an interesting and thorough work, but of course written from the Catholic stand-point. Earlier authorities, on which Mr. Bridgett's work is based, are the Letters of Erasmus, Roper's Life of More, Harpsfield's Life of More (in MS.), George Lilly's Elogia Virorum, Rastell's Life of More, Stapleton's Tres Thomæ (published at Douai in 1588), Cresacre More's Life of More.

Of recent lives of More there are:

1. Miss A. T. Drane's Three Chancellors (Wykeham, Waynfleet, and More), 1880.
2. The charming account in Scebohm's Oxford Reformers (Colet, More, and Erasmus), 3rd edition, 1887.
3. The article on Sir Thomas More by Mr. Sidney Lee in the Dictionary of National Biography, Vol. XXXVIII, 1894.

The education of Sir Thomas More's family.

Nothing is better illustrative of the highest education of women in Tudor times than the accounts of the education of Sir Thomas More's daughters. The following is a translation of one of Erasmus's letters of 1521 (Bridgett, p. 115) to Budée:

A year ago it occurred to More to send me a specimen of their [his children's] progress in study. He bade them all write to me each one without any help, neither the subject being suggested nor the language corrected; for when they offered their papers to their father for correction, he affected to be displeased with the bad writing, and made them copy out their letters more neatly and accurately. When they had done so, he closed the letters and sent them to me without changing a syllable. Believe me, dear Budée, I never was more surprised; there was nothing whatever either silly or girlish in what was said, and the style was such that you could feel they were making daily progress. This amiable circle, with the two husbands, all live in his house. In that house you will find no one idle, no one busied in feminine trifles. Titus Livius is ever in their hands. They have advanced so far that they can read such authors and understand them without a translation, unless there occurs some such word as would perhaps perplex myself.

Mr Bridgett devotes pages 127 to 138 to More's letters regarding the education of his children. The following passage from a letter to Margaret Roper is remarkable,

Where More expresses his opinion that the education of women should go on after marriage:

You tell me that Nicholas [a tutor], who is so fond of you, and so learned in astronomy, has begun again with you the system of the heavenly bodies. I am grateful to him and I congratulate you in your good fortune; for in the space of one month, with only a slight labor you will thus learn thoroughly these sublime wonders of the Eternal Workman, which so many men of illustrious and almost superhuman intellect have only discovered with hot toil and study, or rather with cold shiverings and nightly vigils in the open air in the course of many ages. * * * Though I earnestly hope that you will devote the rest of your life to medical science and sacred literature, so that you may be well furnished for the whole scope of human life, which is to have a healthy soul in a healthy body, and I know that you have already laid the foundations of these studies, and there will be always opportunity to continue the building; yet I am of opinion that you may, with great advantage, give some years of your yet flourishing youth to humane letters and liberal studies. * * * It would be a delight, my dear Margaret, to me to converse long with you on these matters; but I have just been interrupted and called away by the servants, who have brought in supper. I must

have regard to others, else to sup is not so sweet as to talk with you. Farewell, my dearest child, and salute for me my most gentle son, your husband. I am extremely glad that he is following the same course of study as yourself. I am ever wont to persuade you to yield in everything to your husband; now, on the contrary, I give you full leave to strive to get before him in the knowledge of the celestial system. Farewell again. Salute your whole company, but especially your tutor.

Erasmus on Sir Thomas More.

A full account of the praises written of Sir Thomas More would take up a great deal of space, but the following summary of the merits of English scholars by Erasmus cannot be omitted:

When I listen to my friend Colet, it seems to me like listening to Plato himself. In Grocyn, who does not admire the wide range of his knowledge? What could be more searching, deep and refined than the judgment of Linacre? When did nature mold a character more gentle, endearing and happy than Thomas More's?

For the more personal and anecdotal side of Sir Thomas More, the Life by William Roper, More's son-in-law, should be read. Its full title is: The Life Arraignement and Death of that Mirrour of all true Honour and Vertue, Syr Thomas More. It was first published at Paris, 1626. It is included in the Pitt Press edition and the Camelot Classics edition of More's Utopia.

Sir Thomas More.

A fruteful and pleasaunt worke of the beste state of a publyque weale, and of the new yle called Utopia: written in Latine by Syr Thomas More, knyght, and translated into Englyshe by Raphe Robynson Citizein and Goldsmythe of London, at the procurement, and earnest request of George Tadlowe Citizein and Haberdassher of the same Citie. Imprinted at London by Abraham Vele, dwelling in Pauls churchyarde at the sygne of the Lambe. Anno 1551.

The original Latin edition was printed in 1516 at Louvain; other editions were: Antwerp, 1516; Paris, 1516–7; Basil, 1518.

The following bibliography I take from Professor Arber's reprint, a most satisfactory and valuable edition.

English translations:

Ralph Robinson's translation: London: 1551, 1556, 1597, 1624, 1639, 1808 (Dibdin), 1869 (Arber).

Bishop Gilbert Burnet: London: 1684, 1737 (Dublin), 1743 (Glasgow), 1751 (Oxford), 1753 (Oxford), 1808, 1849, 1850. With other works: 1758 (ed. Warner), 1838 (ed. St. John).

Arthur Cayley (the younger): With other works, 1808.

As Professor Arber's edition was printed 1869, the following must now be added:

1. Edited by J. R. Lumby in the Pitt Press Series, Cambridge, 1879.
2. Reprint of Dibdin's edition, by Robert Roberts, Boston, Lincolnshire, 1878.
3. Edited by Prof. Henry Morley
   (1) In Universal Library. Ideal Commonwealths, 1885.
   (2) In National Library Series, 1889.
4. Edited by M. Adams in Camelot Series, 1890.
5. With introduction and notes by T. Lattimer. English Classics for Schools, 1891. Also 1899.
6. Revised by F. S. Ellis (Foreword by W. Morris), Kelmscott Press, 1893.
7. Edited by J. H. Lupton. Clarendon Press Series, Oxford, 1895.
8. Edited by Robert Steele. Temple Classics, 1898.

All the above are Ralph Robinson's translation.

DESCRIPTION OF THE UTOPIAN EDUCATION (INCLUDES TECHNICAL INSTRUCTION).

No citizen is without a science (i. e., as we say, an art).

Besides husbandry [i. e., tillage] which, as I said, is common to them all, every one of them learneth one or other several and particular science, as his own proper craft. That is most commonly either cloth working in wool or flax, or masonry, or the smith's craft, or the carpenter's science. For there is none other occupation that any number to speak of doth use there. * * * Every man learneth one [craft]. And not only the men but also the women. But the women, as the weaker sort, be put to the easier crafts: as to work wool and flax. The more laborsome sciences be committed to the men. For the most part every man is brought up in his father's craft. For most commonly they be naturally thereto bent and inclined. But if a man's mind stand to any other, he is by adoption put into a family of that occupation, which he doth most fantasy. * * * Yea, and if any person, when he hath learned one craft, be desirous to learn also another, he is likewise suffered and permitted. When he hath learned both, he occupieth whether he will: unless the city have more need of the one than the other.

The daily study of good literature in Utopia.

It is a solemn custom there to have lectures daily early in the morning, where to be present they only be constrained that be namely chosen and appointed to learning. Howbeit a great multitude of every sort of people, both men and women go to hear lectures, some one and some another, as every man's nature is inclined. Yet, this notwithstanding, if any man had rather bestow his time upon his own occupation, (as it chanceth in many, whose minds rise not in the contemplation of any science liberal) he is not letted, not prohibited, but is also praised and commended, as profitable to the commonwealth.

The nursing of infants.

Every mother is nurse to her own child, unless either death or sickness be the let. When that chanceth, the wives of the syphograuntes [a] [magistrates] quickly provide a nurse. And that is not hard to be done. For they that can do it, proffer themselves to no service so gladly as to that. Because that there this kind of pity is much praised: and the child that is nourished, ever after taketh his nurse for his own natural mother. Also among the nurses sit all the children that be under the age of v. years.

The education of young children.

All the other children of both kinds, as well boys as girls, that be under the age of marriage, do either serve at the tables, or else if they be too young thereto, yet they stand by with marvellous silence. That which is given to them from the table they eat, and other several dinner time they have none. * * * Throughout all the house equal of age be set together, and yet be mixed and matched with unequal ages.

Education for all, and in what it consists.

All in their childhood be instructed in learning. And the better part of the people, both men and women throughout all their whole life do bestow in learning those spare hours, which we said they have vacant from bodily labors. They be taught learning in their own native tongue. For it is both copious in words, and also pleasant to the ear: and for the utterance of a man's mind very perfect and sure. * * * Of all those philosophers, whose names be here famous in this part of the world to us known, before our coming thither not as much as the fame of any of them was come among them. And yet in music, logic, arithmetic, and geometry, they have found out in a manner all that our ancient philosophers have taught.

One point of inferiority to the writer's own country.

But as they in all things be almost equal to our old ancient clerks, so our new logicians in subtle inventions have far passed and gone beyond them. For they have not devised one of all those rules of restrictions, amplifications and suppositions, very wittily invented in the small logicals, which here our children in every place do learn. Furthermore, they were never yet able to find out the second intentions: insomuch that none of them all could ever see man himself in com-

[a] See Book ii, Ch. iii, and note, in Clar. Press. Ed. (J. H. Lupton).

mon, as they call him, though he be (as you know) bigger than ever was any giant, yea and pointed to of us even with our finger.

The study of natural philosophy.

But they be in the course of the stars, and the movings of the heavenly spheres very expert and cunning. They have also wittily excogitated and devised instruments of divers fashions: wherein is exactly comprehended and contained the movings and situations of the sun, the moon and all the other stars, which appear in their horizon. But as for the amities and dissensions of the planets, and all that deceitful divination by the stars, they never as much as dreamed thereof. Rains, winds, and other courses of tempests they know before by certain tokens, which they have learned by long use and observation. But of the causes of all these things and of the ebbing, flowing and saltness of the sea, and finally of the original beginning and nature of heaven and of the world, they hold partly the same opinions that our old philosophers hold, and partly, as our philosophers vary among themselves, so they also, whiles they bring new reasons of things, do disagree from all them, and yet among themselves in all points they do not accord.

The learning of Greek by the Utopians.

In the exercise and study of the mind they be never weary. When they had heard me speak of the Greek literature or learning (for in Latin there was nothing that I thought they would greatly allow, besides historians and poets) they made wonderful earnest and importunate suit unto me that I would teach and instruct them in that tongue and learning. I began therefore to read unto them, at the first truly more because I would not seem to refuse the labor, than that I hoped that they would anything profit therein. But when I had gone forward a little, I perceived incontinent by their diligence, that my labor should not be bestowed in vain. For they began so easily to fashion their letters, so plainly to pronounce the words, so quickly to learn by heart, and so surely to rehearse the same, that I marvelled at it, saving that the most part of them were fine and chosen wits and of ripe age, picked out of the company of the learned men, which not only of their own free and voluntary will, but also by the commandment of the counsel [council] undertook to learn this language. Therefore, in less than three years space, there was nothing in the Greek tongue that they lacked.

The three years' course of Greek reading.

They were able to read good authors without any stay, if the book were not false. This kind of learning, as I suppose, they took so much the sooner, because it is somewhat allyaunte [=allied, kindred] to them. For I think that this nation took their beginning of the Greeks, because their speech, which in all other points is not much unlike the Persian tongue, keepeth divers signs and tokens of the Greek language in the names of their cities and of their magistrates. They have of me (for when I was determined to enter into my iiii. voyage, I cast into the ship in the stead of merchandize a pretty fardel [=bundle] of books, because I intended to come again rather never, than shortly) they have, I say, of me the most part of Plato's works, more of Aristotle's, also Theophrastus of plants, but in divers places (which I am sorry for) unperfect. For whiles we were a-shipboard, a marmoset chanced upon the book, as it was negligently laid by, which wantonly playing therewith plucked out certain leaves, and tore them in pieces. Of them that have written the grammar, they have only Lascaris. For Theodorus I carried not with me, nor never a dictionary but Hesichius, and Dioscorides. They set great store by Plutarch's books. And they be delighted with Lucian's merry conceits and jests. Of the poets, they have Aristophanes, Homer, Euripides, and Sophocles in Aldus' small print. Of the historians they have Thucydides, Herodotus, and Herodian. Also my companion, Tricius Apinatus, carried with him physic books, certain small works of Hippocrates and Galen's Microtechne [or Ars parva]. The which book they have in great estimation.

The printing of books and making of paper in Utopia.

For when we showed to them Aldus his print in books of paper, and told them of the stuff whereof paper is made, and of the feat of graving letters, speaking somewhat more, than we could plainly declare (for there was none of us, that knew perfectly either the one or the other) they forthwith very wittily [=cleverly] conjectured the thing. And whereas before they wrote only in skins, in barks of trees, and in reeds, now they have attempted to make paper, and to imprint letters. And though at the first it proved not all of the best, yet by often essaying the same, they shortly got the feat of both.

Works connected with the history of education written by Sir T. More:

1. Here is conteyned the lyfe of J. Picus, Erle of Myrandula * * * With dyvers epistles and other workes of ye sayd J. Picus. (Translated by Sir Thomas More.) (1510 ?) 4to.
   Reprint in the Tudor Library. D. Nutt & Son. 1890. 4to.
2. Lac Puerorum. (A Latin Grammar by J. Holt, with two epigrams by Sir Thomas More.) (1510 ?) 4to.
3. Epistolarum D. Erasmi * * * libri xxxi. * * * Quibus adjiciuntur T. Mori * * * epistolae. 1642. fol.
4. Epistola T. Mori ad Academiam Oxon. [reproaching the University for the neglect of the Greek language] * * * etc. Oxford, 1633. 4to.
5. Letter written by Sir T. More, concerning the education of his family, to Mr. Gunnel, their domestic tutor, in a volume: Hints on Education. 1821. 12mo.
6. The Lady's Monitor; selected from the writings of Lady Jane Grey, * * * Sir Thomas More, etc. (Six letters of More.) 1828. 8vo.
7. Epigrammatica. Apud J. Frobenium. Basiliæ, 1518. 4to.

Amongst the books on Sir Thomas More may be mentioned:

1. Thomas Morus und sein berühmtes Werk Utopia. (German translation and bibliography) by E. M. Oettinger. Leipzig, 1846.
2. Thomas Morus, by R. Baumstark. 1879. Freiburg in Breisgau.
3. Nisard (M. D.). Études sur la Renaissance. Renaissance et Réforme. Érasme, T. Morus, etc. 1855. Pt. 2, 1877.

CHAPTER XI.

MEDICAL INSPECTION OF SCHOOLS ABROAD.[a]

Translated from Handbuch der Schulhygiene, 2d edition, of Dr. Leo Burgerstein and Dr. August Netolitzky.

Contents: Arguments in favor of medical inspection—Teachers should not act as sanitary inspectors—Physicians alone competent—Financial considerations—Purpose of medical inspection—Mortality of children—Diseases among school children—Inspection of boarding establishments—Teacher's sympathy needed—Medical inspection in Europe and America—Regulations for medical inspection—Permanency of position of school physicians—Official or private physicians—Duties of school physicians—Should school physicians treat sick children?

ARGUMENTS IN FAVOR OF MEDICAL INSPECTION.

The organism of children is yet, during their school life, in the full course of development, and, consequently, the more sensitive their organs are the more easily they retain the mental and physical impressions received. If the influence of these impressions is not watched and regulated, permanent injuries may result. This applies not only to disturbances of bodily health, but to the origin and development of evil qualities of character and diseased states of the mind.

As far as schools are concerned, the causes of disease among school children are to be found mainly in the long deprivation of freedom, the restricted benefit of pure fresh air, the unaccustomed quiet position in sitting, the confined activity of the muscles, and premature and often protracted mental effort. Although rural school buildings are, as a rule, most deficient in hygienic arrangements, still country pupils have a great advantage over city school children, in that they enjoy in full measure exercise in the open air, which is the chief condition of harmonious physical development. For example, pupils of country schools seldom suffer from myopia, because they are seldom, if at all, engaged outside of school in any work which weakens the vision. Diseases that occur in like manner among city and country school children are mainly attributable to deficient light, badly designed seats, or unhygienic appliances for instruction, principally, however, to insufficient ventilation of crowded and closed schoolrooms.

The sanitary significance of the exacting mental work implied in a forced mastery of studies is not to be underrated. Generally the progress of education, at the present day, causes great demands to be made upon the knowledge and ability of each individual and, in consequence, public schools must afford their pupils an amount of knowledge hardly required of adults fifty years ago. Unfortunately the bounds of moderation are not always observed in this regard. A moderate, thorough knowledge is not deemed sufficient. The main stress of instruction is placed upon much knowledge rather than upon the development and training of the judgment; the memory is burdened with many unessentials, so that the youthful brain accumulates a confused mass of superficial knowledge, which is quickly forgotten after school days are over. Inappropriate methods of instruc-

[a] Articles on similar topics in previous Reports: "Medical inspection of schools," An. Rep. 1899-1900, chap. 14, p. 825; "Mental fatigue in school," An. Rep. 1894-95, chap. 10, p. 449, and An. Rep. 1895-96, chap. 23, p. 1175; "Medical inspection of schools," An. Rep. 1897-98, chap. 30, p. 1489.

tion under unfavorable conditions may be the cause of physical and mental disease.

The constantly increasing number of magnificent buildings and the introduction of hygienic arrangements for instruction, on the one hand, are manifestations of the growing care for the welfare of youth that deserve recognition; on the other, however, vigilance over other existing evils is only too lax. The knowledge that school buildings have well-constructed seats, sufficient ventilation, and plenty of light has caused inattention and carelessness toward dangers that threaten from other quarters. If we read the works of Cohn, Hertel, Von Hippel, Kafemann, Key, and others we shall see that a continuous supervision of schools and school children is most necessary out of regard for health. Myopia and scoliosis are on the increase; Bezold, Bresgen, and Schmiegelow prove that diseases of the nose, ear, and eye often go hand in hand with "poor talents." Many diseases frequently spread in the schools for a long time unrecognized and unobserved, so that the call for protective measures becomes more and more justified.

It is gratifying to note that within recent years much has been done for the promotion of school hygiene. Though the attendant sacrifice has been great the results attained have been commensurate with the effort. To quote only a few instances: According to Desguin, since adequate sanitary precautions have been taken, diseases of the eye and skin are of much less frequent occurrence in the schools of Belgium, and contagious diseases have not spread. Kuborn gives more favorable figures respecting myopia among the school children of Liege, and, as Belliard states, cases of accommodation cramp are decidedly fewer in Nantes since hygienic measures have been taken. Many sanitary improvements have been effected *without abridging or even disturbing class instruction, and without overburdening teachers.*

Most hygienic and sanitary evils may be nearly always remedied or prevented by an intelligent *supervision* of schools and pupils and by a proper employment of appropriate precautionary measures. A prompt and correct choice of these means, however, presupposes accurate knowledge and good understanding of the faults and deficiencies to be removed or supplied. Far from being perceptible at once, hurtful external influences frequently make themselves felt only after a long while; disease is not always easily and quickly perceived by the nonmedical eye, especially when it is of slow development and the first symptoms disclose themselves gradually and imperceptibly. A comprehensive technical knowledge is frequently required to establish and trace the connection between these and definite external influences. The *physician* alone possesses such knowledge, together with practical experience.

TEACHERS SHOULD NOT ACT AS SANITARY INSPECTORS.

Though the opinion has been advanced in various quarters that the superintendence and regulation of the measures for the maintenance of health in schools can be given in charge of teachers, this view is based upon a misapprehension of actual conditions. The carrying out of a rational system of school hygiene presupposes comprehensive methods of investigation and profound special knowledge in all branches of the care of health, which can be attained only by a thorough study of medicine and never by self-instruction or autodidactic teaching. The examination of the eyes, spine, palate, and heart of new pupils, the signification of the observations made by mothers before their children have entered school, and the suggestions and instructions for a proper individual physical treatment of children presupposes a technical knowledge which one who is not an educated physician does not possess. Courses of lectures on somatology, school hygiene, and the care of health can no more replace the study of medicine than pedagogy,

which presupposes a long term of practical experience, can be acquired during the few lessons of a course at a teachers' institute. Faulty, insufficient medical knowledge is a dangerous weapon in the hands of a nonprofessional and can only work harm. If—and not altogether unjustly—a newly graduated physician does not receive the full confidence of the people that may be given to an older, more experienced man, by so much the less can one who is not of the medical profession have, in regard to sanitary matters, a right understanding of the requirements of health and the hygienic measures to be taken to preserve it. The judging of sanitary questions is a matter for physicians, just as questions of building must, undeniably, be decided by architects, and those of instruction and training by teachers. The practical test of the value of the propositions and demands made by physicians is an affair for teachers. Unfortunately, however, it happens that, through excess of zeal, physicians, as well as teachers, overstep the bounds of their profession and touch upon matters which they do not fully understand.

An impatient pressing forward on the one hand and a jealous warding off on the other have disturbed and deferred the solution of the question of medical inspection in schools. The introduction of medical inspection has been opposed on both pedagogical and financial grounds, and, on the part of municipal authorities, out of consideration for possible annoyances in administration.

At first certain educators expressed the fear that medical specialists might go too far in their demands and attach too much importance to the sanitary factor, repressing mental development by limiting the subjects of instruction, exercising a disturbing influence upon the internal management with reference to method, programmes, and home lessons, and diminishing the prestige of teachers among pupils and in society. This prejudice has yielded to a better view, since teachers have been convinced that physicians have in no wise undermined their authority, that teaching and hygiene can go hand in hand in following out their ideal aims, and that harmonious physical and mental development is best promoted by their cooperation.

As Schubert has justly observed, the strong opposition on the part of teachers arose from the fact that it was feared an additional authority might be established which would give rise to friction, mutual distrust, and a state of uncertainty. A dictatorial attitude, without regard to pedagogical demands and aims, might occasion a confusion, in consequence of which both health and education would suffer. In education the aims of instruction alone can not determine; the physical welfare of the children must also be kept in view and promoted. The view of prominent educators is often advanced that it is a duty of the school to promote the physical well-being of the children: but for this physicians are necessary. Private study in hygiene, enthusiasm and zeal on the part of teachers, can not take their place. Some questions relating to the preservation of health, it is true, are easily understood, but many require special medical information.

PHYSICIANS ALONE COMPETENT.

In matters of school hygiene the cooperation of teachers is indispensable, though they can not supply the place of physicians; without the help of the teacher, however, fruitful work on the physician's part is inconceivable. To gain this, the dissatisfaction of many educators, who gave expression to their "aversion to being told what to do by a physician," had to be overcome, and teachers convinced that physicians desire neither to disturb the course of instruction nor impair the authority of teachers, but only to cooperate in the cause of general education. A primary condition for profitable cooperation is therefore, unquestionably, the judicious choice of a physician who possesses a quiet, tactful manner, wide experience, and a knowledge of human nature. Such medical men

will always act in complete accord with teachers and not assume a critical attitude. Experience so far proves that school discipline by no means suffers under medical regulations, and that school physician and school principal working in complete unison can together promote the interests of education. In recognition of these facts, the number of fervent advocates of medical inspection in schools is increasing among influential teachers. At the present day instances of jealousy of and prejudice against medical cooperation on the part of teachers are isolated and rare.

The reasons advanced by municipal authorities for opposing the installation of school physicians show all too clearly that administrative officials fear being hampered in the free exercise of their proper rights by sanitary agents.

As late as 1893, for instance, the city council of Berlin rejected the motion to inaugurate measures for the examination and supervision of the health of school children for the reason that examination by physicians entailed loss of time and great expense, disturbed instruction, and implied a certain distrust of the school board, and that, moreover, the condition of health among school children was satisfactory, and that teachers themselves could exercise supervision. This view has since then changed essentially in Berlin.

It is instructive to follow the long struggle in Breslau, in which Dr. Cohn has been the chief figure. It may be generally accepted that the opposition to medical inspection on the part of local authorities is based chiefly on the fact that physicians may make known damage of various kinds to school buildings, disclose procrastination for years in the treatment of sanitary affairs, and occasion great expenditure of money, thus disturbing the quiet and ease of many a town council.

Since then, however, a large number of cities, recognizing the fact that compulsory education has laid upon them not only the right but the obligation to care for the health of school children, have appointed school physicians; cautiously at first, but in more rapid succession as their fears proved unfounded. The distrust of the medical profession lest private practice might be injured through the measures taken by school physicians, and the anxiety of parents regarding meddlesome interference with home education, have likewise proved to be exaggerated and without cause.

Furthermore, the fear was entertained that medical inspection in schools would awaken and develop a certain distrust and prejudice among the people, concerning chiefly the authority of parents and teachers, thus injuring the cause of education.

In *Norway*, accordingly, medical examination of school children was characterized as a direct encroachment upon family rights. Not only have these objections been estimated at their proper value by physicians, as well as by teachers, in different medical congresses (Paris, Vienna, London, Brescia), and the necessity of introducing medical inspection in schools asserted, but it has been also recommended by the chief health authorities in many States, as, for instance, by the Scientific Council of *Prussia* (October 21, 1888) and the State Board of Health of *Saxony* (October 30, 1891).

FINANCIAL CONSIDERATIONS OF REGULAR MEDICAL INSPECTION.

Financial reasons have also been advanced against the institution of school physicians, still the conviction is constantly gaining ground that with appropriate organization attendant costs for medical inspection are insignificant compared with the advantages which accrue to children, the family, and the State, from a regulated medical supervision of school children, school buildings, and instruction.

It is only just that a physician, like any other brain worker, should receive pay

according to his services, and so, in justice, it can not be expected that the responsible position of school physician should be considered solely an honorary office, and that the duties should be left to the judgment and caprice of a "nonofficial" physician. Definite work can be required only of a salaried physician. The costs of medical supervision of schools would be moderate if in smaller communities this were combined with the municipal health service, and if in larger cities the duties of school physician were divided among city physicians of the poor already appointed.

PURPOSE OF MEDICAL INSPECTION.

The purpose of medical inspection in schools is to take care that no injuries result from school attendance. The importance of this is best shown by the results of the medical examinations of pupils during recent years. Besides nearsightedness and curvature of the spine, headache, anæmia, nosebleeding, nervousness, mental fatigue, etc., are increasing to an appalling degree among school children in both city and country. Moreover it can not be denied that the close contact of children causes the rapid spread of infectious diseases; and not only the so-called children's diseases—measles and scarlet fever—but those the spread of which has in recent years been proved beyond a doubt to be owing to attendance at school.

From the examination of 5,100 boys and 3,200 girls Schmid-Monnard has proved that children during their first years at school gain little in weight and height. Acute diseases occur particularly during the first school year and under unfavorable sanitary conditions at home.

Chronic diseases are more frequent by 5 to 10 per cent among girls than among boys; the number of the former suffering from anæmia is twice as large at the close as at the beginning of the scholastic year. Nervousness and headache are of more frequent occurrence in schools with afternoon sessions, and increase in the higher classes. The cause lies in the greater amount of work, long sitting, and the bent posture in writing, piano playing, and manual work.

MORTALITY OF SCHOOL CHILDREN.

According to Pressl, the mortality of school children between 7 and 14 years of age ranges between 1.2 per cent and 0.4 per cent, being greater among girls because of their more delicate physical constitution and their early employment in domestic work. Geissler has calculated the mortality among 31,696 school children between 7 and 14 years of age (1886–91). The results are here tabulated:

Causes of death.	Per cent of deaths due to each disease.			Number of deaths from each disease in every 10,000 school children.		
	6 to 10 years of age.	10 to 14 years of age.	6 to 14 years of age.	6 to 10 years of age.	10 to 14 years of age.	6 to 14 years of age.
Diphtheria	35.86	15.11	29.75	22.77	4.29	13.84
Scarlet fever	13.17	7.44	11.48	8.36	2.11	5.34
Measles	2.25	.67	1.79	1.43	.19	.83
Whooping cough	.70	.12	.53	.44	.03	.25
Typhoid fever	1.92	5.35	2.93	1.22	1.52	1.36
Contagious diseases, collectively	53.90	28.69	46.48	34.23	8.14	21.62
Consumption alone	5.55	14.15	8.08	3.53	4.01	3.76
All other diseases	40.55	57.16	45.44	25.76	16.21	21.14

According to Würzburg, 11.8 persons in 10,000 between the ages of 10 and 20 years, the time of life during which a large number of minors attend school, died

of tuberculosis in Prussia. These figures are made more impressive by the results of the investigations of Hertel and Key, as may be seen from the following table prepared by Key:

Percentage of sick among school children, according to age and grade, in Sweden.

Schools.	General schools.			Latin schools.						Modern high schools.					
Classes.	I.	II.	III.	IV.	V.	VI_1.	VI_2.	VII_1.	VII_2.	IV.	V.	VI_1.	VI_2.	VII_1.	VII_2.
Average age	11.3	12.3	13.4	14.3	15.4	16.5	17.4	18.3	19.4	14.6	15.7	16.6	17.6	18.7	19.5
Per cent of sick pupils															
(a) Myopia excluded	34.4	37.6	38	37.4	36.6	34.7	38.6	40.5	38.9	32.9	29.7	25.8	31.7	33.6	36.6
(b) Myopia included	37.6	41	43.2	43.9	45.5	49.7	52.7	58.1	58.5	38.1	35	38	39.8	48.4	50

Among 50,027 children in 106 *London* schools, Warner found 9,176 with menta, or physical defects. The Danish commission, appointed at the instance of Hertell found 29 per cent unhealthy boys among 16,789 examined. The examination of the pupils in the public schools of *Prague* showed that 4.43 per cent were near-sighted, 1.54 per cent were hard of hearing, and 5.5 per cent were otherwise afflicted. The oculist's examination of 2,479 school children between the ages of 7 and 14, in *Berlin*, during the years 1897 to 1899, showed that of 300 between 13 and 14 years of age, 24 per cent possessed normal sight, 35.3 per cent were far-sighted, 25.7 per cent nearsighted, and 15 per cent weaksighted; of the remaining 2,176, 43.9 per cent possessed normal vision, 29.7 per cent were farsighted, 16.8 per cent nearsighted, and 9.6 per cent weaksighted. In *Zurich*, of 2,667 new members of the first-year class, 757 were examined by eye and 423 by ear specialists; 508 were found to suffer from abnormal vision, 364 from diseases of the ear, 222 from astigmatism, 83 from the effects of a running ear, and 148 from a diseased tympanum.

Kraepelin draws attention to the fact that in school, children are required to do a certain amount of mental work and that no heed is given as to whether the youthful brain is able to meet the requirements. To be able to judge the capacity of pupils regarding the amount and character of their work other factors must be taken into consideration; as, for instance, liability to fatigue, capacity for work increased by exercise, duration of working time, kind of work, intermissions for rest, time given to sleep, all factors which in their combined physiological action exhibit a very close relation and interdependence on each other, the establishing of which is one of the most important problems of school supervision. In his statistical inquiries Key has kept in view, among other things, the relations between length of sleep and state of health, and has compared the actual customary with the needful time for sleep.

According to Key, children from 10 to 11 years of age should have 10 to 11 hours of sleep; from 12 to 13 years, 10 hours; those 14 years old, 9.3 hours; from 15 to 16 years, 9 hours; from 17 to 18 years, 8.3 hours if the capacity for work and endurance is not to weaken and diseases increase in number.

These remarks substantiate the claim that physicians alone can properly judge and appreciate sanitary conditions of schools, and that reliable statistical material for judging the influence of school and instruction upon the health of the young can be collected and interpreted only by school physicians.

A supervision of school children outside of school, of their home conditions and manner of life, is likewise necessary. The statistical inquiries of Key concerning the home relations of 11,192 school children in *Sweden* show that 58.5 per cent live with their parents; the others are brought up in other families as boarders, and most of those in the higher classes are deprived of parental care. How little

attention is given to ventilation and light in boarding houses! How overcrowded narrow quarters are! How often is it necessary to seek redress, and call those foster parents to account who look upon child boarders solely as a source of revenue and never think of the duties they have assumed in taking charge of such children!

INSPECTION NECESSARY IN BOARDING ESTABLISHMENTS.

In *Austria* a ministerial decree of January 22, 1897, ordered an investigation of the conditions in the student quarters of pupils of Realschulen (high schools), classical schools, and normal schools, which disclosed a multitude of sanitary and moral evils. By ministerial decree of December 17, 1897, the directors of these schools, and by the decree of May 10, 1899, those of industrial and commercial schools, were directed to draw up information for boarding and lodging house keepers relating to sanitary and moral requirements respecting the rooming of children with other persons, the supervision of them, and the distribution of their work. At the same time teachers were invested with the right to require parents to withdraw their children from unsuitable boarding houses, and directors were instructed to recommend suitable quarters. The supervision of the sanitation of students' quarters is included in the jurisdiction of the municipal officials, with whom the directors are to consult. In union with physicians and teachers, local authorities are to conduct regular inspections of students' quarters. In places where there is a lack of accommodation the erection of dormitories under the direction of teachers is to be promoted as much as possible. Special attention must be given to such pupils as are obliged to remain in school during the midday intermission, and all possible effort must be made to provide poor children with warm food. Teachers are to cultivate and maintain conciliatory relations with parents and their representatives, for the sake of the children's education.

Sanitary inspection must be unremitting in boarding institutions, in which particularly those dangers must not be underrated which are a result of living and sleeping together and supplying food to large numbers. For such matters, teachers alone will not answer; decisions must be left to professionally educated men.

Following the example of *France*, where for more than half a century rural orphan asylums have existed, as well as the model of the English "Scattered home," the attempt has been made in northern *Austria* to buy or rent country houses and give poor, honest, married couples a moderate stipend for bringing up 8 or 10 orphans till their fourteenth year of age. The advantage of this educational method is that children enjoy, at moderate cost, family life and a home education suitable to their station in life, and a fondness for agricultural pursuits is awakened in them.

Teachers and physicians are unanimously agreed that sanitary inspection of schools is required for the interests of education itself, and that its control can not be laid upon the shoulders of teachers alone. For secondary schools and like institutions, the circumstances must be considered that teachers are fully occupied with their own individual work, have not the time to prescribe and carry out sanitary measures for schools and pupils, and are not sufficiently acquainted with the work of the medical profession.

THE TEACHER'S SYMPATHY NEEDED.

In public schools teachers and pupils obtain varied information on sanitary affairs from extracts in readers, enabling them to examine with critical eyes the sanitary conditions and hygienic appointments of their surroundings. If, however, this knowledge is to broaden and a correct practical application is to result from suggestions, teachers must, above all things else, possess a deeper knowledge

of the fundamental principles of hygiene, and must have their attention directed to the dangers which threaten the salutary education of the young from various quarters.

By a thorough study of hygiene, which in accordance with the views repeatedly expressed at teachers' meetings in *Germany* should hold a fitting place in any curriculum and be a subject for examination, candidates for teachers, it is true, learn to know the necessity and usefulness of hygienic measures, but do not acquire the ability to undertake complicated investigations independently, or even to institute proper sanitary measures. The opinion of Altschul must be indorsed that "an understanding of hygienic regulations is not synonymous with the power to make such regulations."

On the other hand, it must also be readily conceded that sanitary inspection in schools can prove beneficial only when physicians are in sympathy with teachers, remain in constant communication with them, and act in concert with them. That the care of health lays a great duty upon teachers, without the fulfillment of which the ideal end can never be attained, is self-evident. Who better than teachers can draw physicians' attention at the proper time to abnormal indications among pupils, to hardness of hearing, slow understanding, etc.? Who is more reliable than the teacher for the daily regulation of the temperature, ventilation, heating, and cleaning of schoolrooms? To whom can the young be better intrusted on excursions for study, during recreation at school, etc., than to teachers?

To keep the uniform direction of schools undisturbed the physician can not be intrusted—except in case of protective measures against threatened danger from infectious diseases—with the right of independently directing sanitary measures. On the other hand, school authorities can not dispense with his cooperation in matters of health, and will therefore be obliged to consult him in all affairs pertaining to hygiene, and for this reason make him a member of the board.

MEDICAL INSPECTION IN EUROPE AND AMERICA.

To satisfy the needs of regulated sanitary inspection of schools, the different states of *Europe* and *America* have adopted different measures according to local conditions.

As early as the beginning of the nineteenth century Peter Frank, of *Austria*, considered the fittings for schools and the instruction in his System of a Complete Medical Police; in *Sweden* in 1832 the number of lessons was diminished for reasons of health. In the year 1869 medical inspection in schools was discussed at the scientific congress at Innsbruck, and was repeatedly brought up at later meetings. One of the most fervent advocates for medical inspection in schools is Dr. Cohn, of *Breslau*. In *Wurtemberg* the medical examination of pupils was in 1875 given in charge of the superior district physicians. School physicians were subsequently appointed in different cities of *Sweden*, *Austria-Hungary*, *France*, *Egypt*, *Belgium*, and *Holland*. The present status of sanitary and hygienic supervision of schools in various countries may be gathered from the following notes:

Since 1882 in *Cairo*, *Egypt*, a school physician has been employed at a salary of 12,000 francs, besides two assistants with each a salary of 3,600 francs, having the supervision of 5,000 pupils.

In the *United States* the significance of school hygiene for the common welfare has been more and more recognized since the foundation of the Hemenway Gymnasium, 1879, under Director Sargent.

Medical inspection has been introduced into the schools of *Boston* (1890), *Philadelphia* (1892), *Chicago* (1896), and *New York* (1897). As a rule, one physician is appointed for 1,000 children, so that New York, for instance, has about 300 such physicians. Schools are daily inspected by these, the children indicated by the teachers examined, the sick and suspected sent home, the

absent looked up at home to ascertain the facts about their sickness, without the physicians encroaching upon the rights of home or the family physician.

Boston is divided into 55 school districts, each with 4 school buildings and about 1,400 pupils. A physician with a salary of $1,000 is appointed for each district. Besides the functions mentioned, his duty is to assure himself that the prescribed isolation of cases of diphtheria and scarlet fever has been effected, and to see that the regulations for disinfection are observed. In one year among 14,666 children examined 9,188 were found to be sick and 413 suspected of infection.

In *Chile* in 1888 the supervision of schools was intrusted to a provincial council including a physician as member, and the supreme direction of sanitary affairs was given in charge of a superior board of public health composed of seven members.

School physicians in Chile are required to visit each school at least once a month, inspect the sanitary condition of the building and surroundings, inform themselves of the condition of health among the children, make note of their observations, and hand in a monthly report. The teachers are advised to give physicians all possible support.

A special interest in the introduction of medical inspection in schools has been manifested in *Argentina*, where Coni with two colleagues gave his services gratis until the educational law of 1884 was passed, whereby the supervision of schools was legally placed in the hands of a medical superintendent, who publishes his observations regularly and delivers lectures on the principles of hygiene. *Buenos Ayres* has three school physicians with three assistants and one secretary. In the province *Entre-Rios*, consequent upon the legal introduction of medical inspection in schools since 1890, the one holding the office in each prefecture is required to visit the schools at least once a month, to enter results in a book, to examine pupils under suspicion of illness, and to give the certificate for return after recovery.

In *Japan* in 1898 the minister of education directed the nomination of salaried school physicians in all public schools, and such were at once appointed in *Fu*, *Hokkaido*, and *Ken;* only places with fewer than 5,000 inhabitants are exempted from the appointment of a school physician. The nomination is made by the governor and the duties are defined by law. A monthly visitation of schools is required.

In *Europe*, marked progress has been made in medical inspection in schools within the last decade.

In *Belgium* the city of *Brussels* first appointed special school physicians in 1874, who are required to visit schools three times a month. The duties of the 52 school physicians appointed in 1896 are identical with those prescribed in *Neuchatel* (Switzerland), only that, in addition, they are required to see that cases of infectious disease are isolated in the respective families of pupils, and that the regulations for disinfection are carried out. In view of the favorable results, dentists and oculists were likewise appointed to examine pupils regularly. Similar arrangements exist in *Antwerp*, *Louvain*, *Liege*, and other cities. According to Delvaille, instruction in hygiene is given in 85 per cent of the public schools.

In *Germany* medical inspection is differently organized in the different States. In *Bavaria* and *Wurtemberg* since 1892 physicians in office are required to visit schools unannounced and to report sanitary defects. In *Heilbronn* each pupil undergoes a medical examination and receives a certificate of health (Grundbuchsblatt) for the whole school period, in which are specified general physical constitution, height, weight, chest measure, condition of skin, spine, sight, hearing, mouth, nose, speech; suggestions for treatment in school; information for parents, and observations of teachers. In *Prussia* the supervision of schools is confined to medical officials, who visit them on their regular circuits and report their observations in prescribed forms, for which blanks are furnished. This measure, however, is limited only to the sanitary condition of the school buildings. Many cities (Leipzig, Dresden, Konigsberg, Sigmaringen, Wiesbaden, Nuremberg, Darmstadt, Karlsruhe, Offenbach, etc.) have introduced their own measures for medical inspection of schools. The city of *Berlin* March 3, 1900, by way of experiment, appointed 10 physicians, each having the oversight of 2 schools, with a salary of 500 marks ($125) for each school. Their main duties are to examine new pupils and those proposed for extra lessons as to physical defects; at the request of the school committee to examine children said to be unable to attend school because of sickness; to give opinions on contagious disease, and arrangements of buildings prejudicial to health. Similar laws obtain in Charlottenburg and other cities.

In *Breslau* school physicians are appointed for three years and must show a certificate of hygienic study. They take part in the deliberations of school committees, and have an average of 2,000 children each under them. In *Frankfort-on-the-Main* 11 school physicians are appointed, each with 1,000 marks ($250) salary, and averaging 1,700 children each in charge. The duties of these, however, are only advisory, since they are limited to examination of the feeble-minded and stuttering, and to the expression of opinion on the buildings, seats, and baths, gymnastic games, new buildings, and renovations. *Wiesbaden* possesses a statute in the law of 1897 which has been used by many other cities as a model. Six physicians are appointed, each having a salary of 600 marks ($150), and 1,000 to 1,200 children in charge. They make a two hours' visit every two weeks, seat all the newly admitted pupils with defective sight and hearing, pass judgment

upon admission to subordinate branches of study (gymnastics, singing), keep the Grundbuchsblätter, and make annual reports.[a]

In the duchy of *Meiningen* school physicians are appointed at the public expense as medical advisors to district and city school officials; their duty is to thoroughly examine the health of newly admitted children. In *Baden*, district physicians must inspect schools once a year; in *Hesse*, district physicians make an annual report upon the condition of health in schools; in *Alsace-Lorraine*, the schools are officially inspected by physicians in office; in *Mecklenburg*, since 1891, district physicians are required to inspect institutions on their regular circuit of visits during hours of instruction. In *Saxony*, district physicians must examine plans of construction and supervise sanitary conditions of educational institutions. *Leipzig* introduced its own system of inspection in 1882, dividing the city into 15 districts, each with 3,000 to 4,000 children and one physician, with a salary of 500 marks, intrusted with the supervision of schools and pupils. Generally, in all German states, school authorities regularly consult medical officials when considering plans for new school buildings or renovations, examining sites and surroundings, drinking water, ventilation, light, heating, and when judging the condition of buildings and the arrangement of schoolrooms and studies.

In *Great Britain*, where superintendence of schools is a local affair, individual cities have appointed school physicians. Since 1889, the *London* school board employs one medical school officer,[b] who passes upon the sanitary features of plans for school buildings, the hygienic conditions of public schools, and the physical qualifications of candidates for the teaching profession. In *Edinburgh*, since 1892, schools are inspected by two physicians (one male and one female).

REGULATIONS FOR MEDICAL INSPECTION.

The first regulations concerning medical inspection in schools in *France* date back to the year 1833; but it was not until 1884 that the city council divided *Paris* into school districts, each with 15 to 20 classes, and a health inspector with a term of office for three years, appointed by the prefect on the nomination of the mayor; the salaries of the 126 physicians foot up to 100,800 francs. By decree of April 2, 1898, medical inspection of schools was completely organized and a general school inspector appointed who is to assist the superintendent of studies in all measures that affect the hygiene of pupils and schools. At the close of the year he is required to make to the city council, through the superintendent of studies and prefect of the Department of the Seine, a comprehensive report on the conditions affecting health in the schools of Paris, based upon the communications of the medical school inspectors. Each school physician in Paris has about 1,200 to 1,800 elementary pupils in charge. At the bimonthly inspections the sanitary condition of the school building and its appointments must be investigated, sick children examined, and the report presented to the administrative authorities within twenty-four hours. Every year all children 10 years of age are vaccinated, and those are selected who are to be sent to vacation schools. Unfortunately, secondary schools, lycées, and gymnasia, as well as private schools, are not subject to medical inspection. By the laws of October 30, 1886, and January 18, 1887, school inspection was decreed for the departments; still it was at first introduced only in 10. By the law of July 15, 1892, the communal physicians of the poor are required to inspect the schools and pupils in the provinces, so that now medical inspection has been introduced into all the public educational institutions of France.

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[a] The former Prussian minister of education, Dr. Bosse, in 1900, addressed an order to the various provincial governments regarding the introduction of regular medical examinations and the inspection of all educational institutions. It reads in part as follows:

Medical inspection in the schools of Wiesbaden has proved that many infirmities, diseases, and predisposition to disease are found in children of large cities before their entrance into school, which after subsequent recognition are erroneously attributed to attendance at school, and which, moreover, imperil the health of other pupils. It is of interest to learn the state of health of children in rural districts by means of the medical examination of a large number of children who either have been just admitted to school or have attended some time, so that it may be judged from the facts deduced whether permanent medical inspection be necessary in rural schools, and to what extent. The provincial school authorities are therefore ordered to select about six schools in each county (Regierungs-Bezirk) where children about to be admitted, chosen from various grades of the population as far as practicable, shall be examined by the health officer, assisted by the local school inspector and teacher, to ascertain whether they may be admitted without danger to other pupils, and whether they can attend all or some of the classes [this refers to dispensation from gymnastic exercises, etc.] without prejudice to their physical development. In regard to the first point, the investigation should cover infectious and contagious diseases, especially scarlet fever, measles, whooping cough, and diphtheria. With regard to the second point, the general build, mental development, constitutional diseases, and physical infirmities should be considered.

The inspection of class rooms from a hygienic standpoint is likewise required, and the following points are to be considered: Number of children, capacity of rooms, cleanliness, natural and artificial light, window shades, temperature, ventilation and heating, condition of the air, seats and desks and other furniture. The inspection of schoolhouses includes that of grounds, in regard to drinking water, drainage, and vicinity of factories.—ED.

[b] In 1898 two assistants to the medical officer were appointed, and in 1902 three are reported, two men and one woman. In 1900 a standing subcommittee was constituted to supervise the work of the medical officer's department.—ED.

Since 1889 instructions have been in force in *Norway* to the effect that with the consent of the local administration a physician may inspect the health of school children; but by decree of September 24, 1891, this regulation was extended, so that the health of pupils must be medically examined three times a year, in May, August, and December, and a report drawn up in prescribed form by the board of teachers and physician, who are to give special attention to the causes of absence from school, headache, and fatigue. No special school physicians are appointed; medical inspection is in charge of city physicians, who receive for this service an increase of salary. The first school physician was appointed in 1885 in Hamar, for a public school with 700 pupils. A law for school physicians was passed May 24, 1898, in pursuance of which they are to advise teachers in all matters of health, inspect the hygienic conditions of schools, examine pupils, inspect during instruction in drawing, writing, gymnastics, and manual work, examine all communications from private physicians certifying illness and physical defects which would justify absence from school, and hand in a report at the close of the school year.

Whereas in most states medical inspection of schools is a local affair, and in great measure dependent upon municipal authorities, in *Austria-Hungary* it is a State institution, which is, however, differently organized and developed in the two parts of the realm.

In *Austria*, the supervision of schools is an affair of the State; in the different Crown lands it is under the provincial councilor of education, in the school districts under the district school boards, and in the different communities under the local school boards. Though special school physicians are not appointed, medical inspection is assured through special regulations.

In addition to detailed regulations concerning the sanitary arrangements of schools, the ministerial decree of June 9, 1873, directed that each district school board should have a permanent committee on health, with a physician as regular member. No general law for medical inspection in schools exists, but numerous minor orders assure the influence of official physicians in school affairs. In deciding upon plans for new constructions and alterations local school boards are required to consult physicians, and district boards and the councilor of education must obtain the opinion of State health officials before consenting to any building project. State physicians, 359 in number, exclusive of physicians appointed by independent municipal authority, are required by numerous regulations to inspect schools, to remedy at once existing evils and report subsequently to school boards, to present suggestions, and to make yearly a detailed report on sanitary conditions. In most all Crown lands, continuing the development of sanitary organization, provision for medical school service is completely made by the appointment of district physicians, since it is made the special duty of these to inspect schools. Moreover, in all larger communities the forming of boards of health under the chairmanship of the mayor is prescribed, at whose ordinary sessions physicians and teachers must be conjoined as regular voting members.

The duties of public physicians, in so far as they concern educational affairs, consist in the application of preventives against contagious diseases in school and at the home of teachers; in the examination of children to be excused from studies and those suspected of contagious diseases; in the execution of regulations concerning the cleanliness and disinfection of school buildings; in the supervision of heating, ventilation, seats, etc. By decree of the minister of the interior, February 28, 1900, the participation of public physicians in the proceedings of boards relating to construction of school buildings was prescribed anew and made more positive.

Several cities lead in giving good example in the regulation of medical inspection in schools. In *Troppau*, *Friedek*, and *Freiwaldau* (Silesia) physicians have undertaken the service gratis; they inspect schools, consult with teachers on sanitary affairs in quarterly meetings, examine new pupils, watch over their health, etc. In *Brünn*, the city council has increased the number of sanitary districts to 10, the number of physicians to 13, and has confided to these the duties of medical inspection of schools, selecting one for special examination of diseases of the eye and ear. In *Salzburg*, since 1894, public physicians examine the physical and mental condition of school children. In *Vienna*, the inspection of schools and the periodic examination of pupils are in charge of city physicians under the direction of the head physician appointed by the city; their duties are defined by the law of May 9, 1895.

Moreover, individual educational institutions appoint their own physicians; in this respect, the Theresian Academy in Vienna (a boarding school combined with a classical high school) serves as a model. A head physician and two resident physicians conduct the medical inspection of this institution; games are supervised and adapted to physical conditions, and the pupils are examined at regular intervals by an oculist and a dentist. At the beginning and close of the school year pupils undergo a medical examination. Besides a winter bathhouse with 20 tubs, and a large summer swimming pool, which is used for skating in the winter, each dormitory is provided with a shower-bath apparatus. The infirmary has 74 beds, each having 30 cubic meters of air space. For older pupils seven, for younger eight and a half to nine hours sleep are allowed.

In *Hungary*, the office of school physician was created by Minister Trefort in 1885, and in 1887 the first physicians were appointed; they are obliged to superintend the health of school children, inspect the sanitary conditions of school buildings and their appointments, as well as the dwellings where pupils board, and, finally, give instruction in hygiene in secondary schools. School physicians are members of the teaching corps, have a vote on all questions of hygiene, and are consulted on all matters concerning health. As certain preparatory studies and exami-

nations are required of them, such physicians have as yet been appointed only in secondary schools; the lower schools are still without them. Some private institutions, as, for instance, the Jewish elementary schools in *Budapest*, with about 1,300 pupils, have appointed their own physicians, who are required to hand in semiannual reports.

In *Roumania*, by decree of April 5, 1899, head state physicians are required, either themselves or in the persons of district physicians, to examine all school children at least once a year, to inspect buildings with reference to construction and appointments (heating, light, cleanliness, drinking water, privies, etc.), to supervise all that touches in any way on the subject of health, and to submit propositions to the proper authorities for supplying existing wants and remedying evils.

In *Russia*, the minister of the interior is assisted by a "medical board" composed of prominent physicians, and the minister of education by a "medical department." The supervision of health in schools is in charge of school directors and school physicians. A strong movement is in progress in favor of the introduction of medical inspection in schools. Since 1871 a physician has been appointed for each secondary school, who not only treats pupils and has a voice in their admission, but who is also required to supervise schools, pupils, and methods, and see particularly that gymnastic exercises are adapted to the pupils' physical powers. Since 1887 the right of vote on sanitary questions has been granted to these physicians in the sessions of district school boards. Special physicians have been appointed for the schools of various large cities. Since 1895, in *Moscow*, 6 physicians have been in charge of health matters in the 72 elementary schools, and since 1888 two female physicians have been employed at the girls' high school. Besides their other functions, these physicians are required to vaccinate and revaccinate, to treat poor sick pupils free of charge, and to manage affairs in cases of epidemics.

The expression "school physicians," in the proper sense of the term, was first employed in *Sweden*, though at first their duties did not comprehend the work done by them at the present day; for in 1863 they were only obliged to examine pupils with reference to exemption from gymnastic exercise. In 1874 committees on health were given charge of the schools, especially their ventilation, and in 1878 school physicians were required to examine the health of children at the beginning of the term and report the results.

In *Switzerland*, *Lausanne* was the first to establish an excellent school medical service. Physicians with definitely outlined duties have been appointed in *Lausanne*, *Zurich*, *Basel*, *Chaux-de-fonds*, *Montreux*, *Yverdon*, *Neuchâtel*, *Chur*, and *Nyon*. In the Canton of *Zug*, by decree of July 25, 1894, physicians are required to examine all the pupils of the lower classes within fourteen days after their admission, and to supervise the enforcement of the police regulations in cases of infectious disease; also the school hygiene and ventilation, domestic work, closing of school during hot weather, etc. In 1896 the canton of *Vaud* promulgated a law concerning the care of health in public and private schools, including directions for procedure during the prevalence of contagious diseases, disinfection, etc. In 1900 *Freiburg* issued an ordinance relative to the superintendence of health in schools by physicians. In *Geneva*, by an ordinance of December 24, 1888, sanitary inspection is in charge of 12 physicians, who are obliged to examine school localities and pupils twice a year. In *Basel* and *Zug* the instructions for school physicians have reference to the seating of pupils with respect to size, position of the body, and nearsightedness; also to the hygiene of the eye, ear, and voice; to intermissions, course of study, vacations during hot weather, home lessons, private lessons, physical exercises, sickness, dismission of children from school, and to the inspection of the sanitary condition of appointments and the appliances of instruction. In *Neuchâtel* school physicians are required to keep constant watch over the sanitary condition of schools, examine the plans for buildings, supervise the carrying out of the rules relating to light, ventilation, and heat, examine the mental and physical condition of pupils, determine when there is complete recovery from contagious diseases, acquaint teachers with the first symptoms of such diseases, and teach them first helps in cases of accident. Poor sick children are treated only upon request of parents. One hour a week is set aside for the examination of school localities, and one hour for consultation on matters pertaining to the service. Every third semester a lecture is held on some subject of school hygiene, and once a month a report is made to the school board.

In *Servia* the erection of schools is regulated by law; in *Belgrade* special physicians are appointed for the city schools; those for high schools are appointed by the minister of education. Instruction in hygiene is given in all institutions of learning (Lehranstalten); at the normal school special teachers are assigned for this study.

PERMANENCY OF TENURE OF SCHOOL PHYSICIANS.

A prime condition for the successful and beneficial development of medical inspection in schools is that the position of school physician be permanent and independent. It is only when a physician is sure of his position that he can successfully oppose countermovements in the execution of well-founded sanitary

schemes. If he proceeds in a tactful manner, and affirms the principles of hygiene without setting them above those of pedagogy, all prejudice which may yet exist against school physicians will vanish. With the necessity for medical inspection once established, it is only a question of time when physicians will be voting members of all school boards, and sanitary affairs relating to schools and instruction uniformly managed with the cooperation of physicians or boards of health.

Great difference of opinion prevails as to who shall be appointed as school physician. In deciding this fundamental question, regard must be had as to whether medical inspection is to be a permanent institution or whether there is only to be a sanitary supervision.

If, as Dr. Cohn desires, school physicians are to give their entire energies to school service, their official duties, in case medical inspection is extended to infant asylums, private schools, and kindergartens, will leave them no opportunity for private practice, for work in legal cases, or for any other subordinate occupation in the line of their profession. To forbid private practice to school physicians, in so far as it does not conflict with their school duties, would not advance the interests of the cause, for a physician can only have a full knowledge of his science if he has the opportunity to test and utilize his knowledge by attendance on the sick. It would be contrary to humanity for physicians to be only statisticians, professors, and investigators, and not at the same time medical advisers in cases of sickness.

If physicians are to act solely as school physicians, and extensive special knowledge for a thorough examination of eyes, nose, ears, and teeth are required of them, besides lectures on school hygiene, their appointment is apt to fail on the question of salary. Only a few communities would be in a position to offer a large enough salary for the position to be desirable. With the requirements mentioned but few children could be assigned to the charge of one person, and the large cities would be compelled to appoint a number of physicians at considerable cost, whereas smaller communities would be forced to do without them altogether. Trials in the different cities have determined how many children may be assigned to one physician. In no case is it advisable for one to have more than 1,000 to 1,200 children intrusted to him. The fewer children a physician has to supervise, the more conscientiously and the more reliably he can fulfill his duties; a greater number would cause superficial work. It is the same as with instruction—the fewer pupils a teacher has, the better are the results obtained.

The case is different if the question becomes one only of sanitary inspection. If (as the case is in *Austria*, where there is a thorough organization of the municipal health offices) the sanitary inspection of public schools is made directly by public physicians, as a rule, in view of the small average size of health districts, only a moderate number of classes and children fall to one man; and even in cities, where several such physicians are employed, the number of pupils assigned to each seldom exceeds 500 to 1,000, so that overburdening of physicians can not result and medical inspection can be carried out to its fullest extent. The State supervision of the school work of these municipal physicians can easily be effected by the sanitary specialists associated with the district (Bezirk) and federal authorities. A few communities have solved the difficulties of the situation, in that they have appointed private physicians for the minor duties of examinations, keeping the health registers, testing sight and hearing, passing judgment on gymnastic exercises and games, yet have confided the chief direction in all questions of hygiene to special official physicians. This method of procedure is to be recommended only for larger communities with a great number of school children, and then only when regular meetings of the physicians are held under the chairmanship of the head school physician, with the school superintendent present.

OFFICIAL OR PRIVATE PHYSICIANS AS MEDICAL INSPECTORS.

There is no doubt but that communal physicians intrusted with the charge of medical inspection in schools will make a speedy effort to acquire sufficient practical experience in school hygiene and the necessary training in methods of examination through their own studies and under the direction of official physicians. The opposition advanced in many quarters, that not every certificated physician is able to meet the necessary requirements, is therefore hardly well founded in the majority of cases, and should by no means prove an insurmountable obstacle in the way of introducing school physicians. The fear of a lack of adequately educated physicians is the less justified at the present day, since according to the course of study required in most countries each member of the medical profession without exception can, and in part must, acquire sufficient knowledge in the subsidiary branches which qualify him for undertaking special examinations of school children.

The appointment of female physicians, as has been made in high schools for girls in Paris, Edinburgh, Moscow, and other places, can meet with no objection, if they are admitted to the practice of medicine only after passing the same strict examinations as their male colleagues.

The wisdom of calling official physicians to the duties of public supervision of medical inspection in schools can hardly be doubted; the only objection that can be advanced is the lack of time for the fulfillment of their many obligations. Such an objection is valid only in those countries where public physicians are in charge of extensive districts, or where their whole time is claimed by forensic duties. The claim advanced by the government of *Reuss* for state medical supervision must be agreed to in the interests of a uniform administration, and for the reason that in most countries the appointment of official physicians is dependent upon the proof of a special knowledge of hygiene.

The minister of education in *Bavaria* has instructed the trustees of secondary schools to consult official physicians on all sanitary questions. In *Austria*, according to the provisions of the imperial sanitary law of April 30, 1870, state physicians are required to superintend the sanitary condition of schools; moreover, according to most local laws, each district school board must have a physician as a regular member, who is to give advice on all sanitary matters, to remedy on the spot abuses which come under his notice, to inspect schools, and submit propositions for improvement. Some state school boards have passed explicit resolutions to that effect. The enforcement of these plain legal provisions, however, has as yet been effected only in exceptional cases.

DUTIES OF SCHOOL PHYSICIAN.

Of what nature are the duties of school physicians? It would be altogether wrong to designate the medical treatment of school children in cases of sickness as the business of school physicians. On the contrary, if their position is not to be undermined, and if they are not to come in conflict with various authorities, their labors must, first and foremost, be directed toward prevention of disease. Their duties must be, not to treat sick children, but to preserve healthy children from disease and injuries to body and mind by keeping the agencies which caused them at a distance. The diseases of school children merely give physicians the hint how and where injurious influences are to be sought. If the source of the evil effects has been traced, it will not be difficult for him to make the proper suggestions for moderating or removing the disturbing influence.

The work of physicians should not run in a fixed groove; they must individualize, and above all take local conditions into consideration. School hygiene in cities requires different action on the part of physicians from that in the country.

Though general sanitary conditions are usually better in the country, because of purer air and the fewer restrictions upon the liberty of children, it would be unjust to confine medical inspection to city schools and neglect rural schools. In the same way medical cooperation in the care of health must extend to all public and private schools, as well as to boarding schools, high schools, normal schools, lycées, commercial and industrial schools, and schools for girls (attended exclusively by girls), for it may not be presupposed that the sanitary conditions of these higher institutions are any better than those of elementary schools. On the contrary, thorough and intelligent work from a physician is often especially necessary in such institutions, because, with few exceptions, they lack altogether or have insufficient medical cooperation in their management, though the health of teachers and pupils frequently affords enough occasion for it. It would be superfluous to enumerate instances, as every teacher who does not close his eyes to the simplest requirements of health finds instances enough in his own building. Is it just, for example, that pupils should be kept in schoolrooms with doors and windows closed, while teachers and their companions seek recreation in the halls? Or is it right that a prematurely debilitated teacher should anxiously keep windows and doors closed, preventing the children from receiving a sufficient amount of pure air? How often is it forgotten that fresh air, together with a proper interchange of rest and motion, is the best remedy for headache, anæmia, and mental overfatigue.

Palatial school buildings and hygienic contrivances of all kinds are not sufficient to replace lost freedom and the deprivation of unrestrained exercise in wood and field; certain injurious influences connected with school attendance must be kept at a distance if the health of school children is to be preserved. Disease is not always a result of faulty arrangement of buildings, but is often due to other external agencies.

Kollmann states that the pupils of the old classical school of *Frankfort*, of which the hygienic appointments were faulty, were examined by a physician before they occupied the new building; after nine years of occupancy of the new building a recent medical examination showed the sad result that, in the meantime, despite the "best sanitary appointments" of the new building, near-sightedness had increased from 25 to 32 per cent. The reason for this is to be found in the increasing strain on the sight in mastering the greater number of studies.

At the 24th meeting of the German Public Sanitation Association, in *Nuremberg*, Schiller and Schubert formulated the demands of medical school inspection. The duties of school physicians should comprise:

"I. The supervision of the sanitary condition of school buildings and their appointments.

"II. The supervision of the carrying out of regulations concerning the hygiene of instruction and appliances of instruction.

"III. The care of the health of school children and aiding the public physicians in preventing and combating contagious diseases, determining the physical defects of children for the purpose of continuous observation or special consideration during school hours, and the supervision of physical training in so far as it is directed in school."

In the development of school hygiene these requirements might form the skeleton to serve as a foundation for the laws governing the duties of school physicians.

From this state of the case it is readily seen that the professional duties of school physicians group themselves into three classes, to-wit: (1) Supervision of the sanitary conditions of school buildings; (2) influencing as far as permissible the in-

struction, and (3) the supervision of the health of pupils. Key has outlined a system of medical inspection and supervision of school hygiene based upon his investigations in hygiene.

Comprehensive and exhaustive regulations for medical inspection were issued in 1885 and republished June 4, 1890, by the council of education in Görz, Gradisca, and Istria, in Austria. Dr. Altschul has drawn up a list of questions, adapted to conditions in the city of *Prague*, to be used in the sanitary investigation of school buildings and their appointments, as well as in the special physical examinations of pupils, following the form of which a register for schools and pupils might easily be arranged and kept constantly filled out.

The "Russian Society for the Preservation of Public Health" has recently arranged a programme for the investigation of the hygienic condition of schools, instruction, and pupils, in which all important points are considered that may come into question in framing instructions for school physicians. Nevertheless, the principle will always hold good that the school physician must "feel" the extent (or scope) of his duties, and that the manner of their fulfillment must be left to the tact of this specialist.

The office of the school physician should be mainly to advise and prevent; least of all to cure.

The advisory sphere of action will include the site and neighborhood of school buildings, materials, plans of construction, division into rooms, and interior arrangement, appliances of instruction, lighting, heating, ventilation, water supply, play grounds, baths, gardens, places for gymnastic exercises, and residences of teachers and pupils. Schools will derive an advantage only when buildings are thoroughly examined once a year by a physician, in company with an architect and the superintendent, and the ways and means for remedying existing evils are discussed.

According to the 31st annual report of the State Board of Medicine in *Saxony*, all the schools in *Dresden* have for several years been visited by a commission consisting of an architect, the physician in charge, and the principal of the school, and notes made of the deficiencies noticed. The requirements for school buildings in the canton of *Geneva*, *Switzerland*, were defined by the decree of January 28, 1898. In lower *Austria* the board of health has defined the principles of sanitation to be observed in the construction and maintenance of orphan asylums, educational institutions, and dormitories.

As a preventive measure, school physicians should inspect each class room frequently during the year, examine the eyes, ears, mouths, and spines of the children, and advise the proper authorities of faults noticed; devote their most unremitting energy and attention to locating and fighting contagious diseases and disinfecting schoolrooms and dwelling apartments in the schoolhouse; note down their observations in a book kept in the school, propose measures, adopt their own measures in pressing cases, in anticipation of official approval, and recommend a suspension of school when any danger is threatened. Special attention should be given to faulty speech, bad positions of the body, nervous states, defects of hearing, infectious eye diseases, nearsightedness, and skin diseases; also, when the programme of instruction is under consideration, to call attention to unwholesome features in it or to its hygienic requirements. The examination of pupils at their first entrance into school is of the utmost importance; height, weight, nutrition, constitution, the condition of spine, eyes, and ears, all imperfections, and mental conditions should be accurately determined. It would be most desirable if mothers could be present at the first medical examination, since they could give the best information as to previous illness and could receive suggestions for the treatment and bringing up of children at home. In the mother's presence

children would submit more readily to examination, and more reliable data could be obtained.

Dr. Mangenot maintains that examinations should be exclusively for the benefit of pupils, and that all purely scientific or statistical inquiries, for instance, anthropological, should be forborne for want of time, even though their scientific value was not to be gainsaid. The examinations should be simple, not complicated. When practicable, height and weight should be ascertained. A report should be made twice a year and copies sent to parents. Professional confidence would not be violated, since eye, ear, and nose diseases are inoffensive and would not lead to any faultfinding on the part of parents. Remarks upon syphilis—of rare occurrence among children—could be made apart or entirely omitted; scrofula and rachitis could be indicated by terms intelligible only to the medical profession. Acquainting parents with the results has the advantage of drawing their attention to any evil for which they could seek further medical advice.

Should these preventive measures prove unsuccessful, medical inspection, as has been already said, must extend to the homes of pupils and their manner of life outside of school. In this regard those physicians in the country have the advantage who as family physicians gain an insight into the family relations of pupils. Consequently, they can judge better of the influence of home, food, manner of life, social intercourse with other children, and habits, and can better estimate the consequences of hereditary disease in families, etc., than the school physicians of cities, who as a rule see the children only during a short examination. Disease can only be rightly interpreted and explained when the defective lighting of the homes of pupils, the bad air in sleeping apartments, the damp rooms, the wage-earning occupations, and the lack of care of the skin are known to physicians and are considered by them.

SHOULD SCHOOL PHYSICIANS TREAT DISEASED CHILDREN?

It is only in exceptional cases, when children are taken suddenly ill in school, that school physicians should undertake to cure; wherefore the proposition of the medical inspectors of the schools of Paris to provide district schools with an emergency medicine chest containing a small selection of medicines and liniments, and explaining their use to teachers, is not altogether to be ignored. In Austria, in 1895, the supreme board of health indorsed the introduction of medicine chests, with rules for use framed and hung on the wall. Repeated instances of their usefulness are recorded in the country in cases of poisoning by eating poisonous mushrooms, berries, and plants (belladonna, Jamestown weed), as well as in cases of accident during gymnastic exercise.

No one will dispute that physicians alone should have the right to determine when a child shall resume his studies after recovering from illness, or from what studies he should be excused. Children should be examined at once upon entering school, so that defects may be disclosed and further injury to health prevented. It is also of advantage that physicians be sometimes present as silent observers during instruction, so as to watch the children without attracting their attention. It is a well-known fact, in the case of general examinations formally announced, that the subjects often assume forced attitudes of body, give wrong replies in testing their sight or hearing, and so make the results of examinations unreliable.

It is a further duty of school physicians to consult teachers on important matters, to explain sanitary measures, in order to remove detrimental influences and supply deficiencies. In this respect it is necessary that physicians hold an equal rank with teachers in their assemblies, that their propositions may not lack a certain authority. On the other hand, physicians should not forget that their posi-

tion is a coordinate one, that they must exercise moderation in their claims and not aim beyond their mark.

The sanitary service of school physicians must be permanent, extending over the whole domain of school and throughout the whole year. Great difference of opinion prevails with regard to the frequency of inspection. One inspection a year is not enough, because sanitary conditions change according to the time of day or year, climate, temperature, and the occupation of pupils. On the other hand, one to three detailed examinations of pupils a month must be acknowledged too many.

CHAPTER XII.

ADMISSION TO COLLEGE ON CERTIFICATE OF SECONDARY SCHOOLS.

CONTENTS: General statement—New England College Entrance Certificate Board—Accrediting systems of different State universities—List of institutions admitting students on certificate—Address by Prof. A. S. Whitney on methods of accrediting schools.

GENERAL STATEMENT.

The acceptance of certificates from principals of certain high schools and other secondary schools in lieu of examinations for admission to the freshman classes of universities, colleges, and schools of technology is becoming very general throughout the country. The most complete system of accredited schools is found in the Western States, where the State universities are in very close relations with the numerous public high schools.

The methods adopted for the accrediting of schools vary in the several States. The initiative is made by the secondary schools, and upon the receipt by a university or college of an application from such a school to be accredited, the work of such school is examined and passed upon by a committee of the faculty or by a special high-school examiner or visitor after a personal inspection of such school. In other cases blank forms of application are furnished to the principals of schools, which applications are then examined and passed upon by the faculty of the institution to which they wish to be accredited.

NEW ENGLAND COLLEGE ENTRANCE CERTIFICATE BOARD.

The New England College Entrance Certificate Board was organized at Boston on May 16, 1902. The institutions holding membership in the board are Amherst College, Boston University, Brown University, Dartmouth College, Mount Holyoke College, Smith College, Tufts College, Wellesley College, and Wesleyan University. After January 1, 1904, no certificate will be accepted by the above-mentioned institutions from any school in New England which has not been approved by the above-mentioned board. The by-laws and rules governing the board are as follows:

BY-LAWS.

I. The name of this board shall be the New England College Entrance Certificate Board. This board is established for the purpose of receiving, examining, and acting upon all applications of schools that ask for the privilege of certification.

II. Each college belonging to the board shall be entitled to one delegate, whose term of service shall be three years.

III. The officers of the board shall be a president and a secretary, who shall also be treasurer. They shall be elected annually at the regular meeting in May, and shall enter upon the duties of their respective offices at the close of that meeting. Their duties shall be those usually attaching to such positions.

IV. These officers, together with another member annually elected by the board, shall constitute an executive committee, whose duties shall be:

1. To consider such measures as may be suggested for furthering the objects for which the board is established, and to obtain for the use of the board all necessary information relating to such of these measures as the committee may deem important.

2. To apportion the expenses of the board among the several colleges in accordance with Section IX of the general provisions under which the board was organized, and to direct the collections and disbursements of the board.

3. To make an annual report to the board at the regular meeting in May.

The time and place of the annual meeting in May shall be fixed by the executive committee.

Special meetings of the board may be called by the executive committee.

Not less than one week's notice shall be given of all meetings of the board, regular and special.

V. In the absence of the regular delegate from any college a substitute authorized by that college shall be understood to have the full powers of delegate.

VI. The amount due from each college as its share of the expenses of the board shall be payable on the first day of January in each year.

VII. The board shall make an annual report to the several colleges represented in it. This report shall include the annual report of the treasurer.

VIII. A majority of the members of the board shall constitute a quorum for the transaction of business, but no school shall be approved except by the affirmative vote of two-thirds, and no school shall be dropped except by the affirmative vote of a majority of the board.

IX. Any college in New England that admits students by certificate shall be eligible to membership in the board on accepting in full the rules of the board, and may be admitted by a majority vote of the faculties therein represented.

X. These by-laws may be altered or amended by a vote of two-thirds of the members present at any meeting of the board, regular or special.

RULES.

I. The executive committee shall receive and examine all applications of schools to be put on the approved list, and shall present them to the board for action.

II. Applications for approval must be made to the secretary upon blanks furnished by the board and covering full statements concerning courses of study, teachers, and equipment.

III. Applications for approval shall be acted upon as soon as practicable after they are received, but they must be received before May 1 in order to be approved for the next college year.

IV. No school shall be placed upon the approved list unless it can prepare for college according to some one of the recognized plans of entering the colleges represented on this board.

V. No school will be approved unless it has shown by the record of its students already admitted to college its ability to give thorough preparation for college, or unless it can satisfactorily meet such tests as the board may establish to determine its efficiency.

VI. The board shall have the power of withdrawing approval from a school, and from such a school certificates shall not afterwards be accepted until it shall have again been approved by the board.

VII. Certificates coming from any school approved by the board, and covering all the requirements for admission made by any college represented in the board, shall be valid at such college, and certificates that do not so cover the entire requirements shall be treated by each college according to the rules which that college establishes for such certificates. No certificate from a school not approved by this board shall be valid for admission at any cooperating college unless the school lies outside of the jurisdiction of the board.

VIII. A general report of the work of pupils from approved schools for at least one-third of their first year in college shall be made to the board and such other reports as the board may require, and all complaints of insufficient preparations shall be made to the board with specifications as to subjects and individuals, but such complaints shall not interfere with reports to the schools about students entering from them.

IX. The list of approved schools shall be revised every three years, and approval shall be withdrawn from schools that within that time have sent no student to any of the colleges represented in the board.

X. The list of schools approved by the board shall be published in the catalogues of the colleges, or in such other way as the colleges shall deem best.

The secretary of the board is Nathaniel F. Davis, LL. D., 159 Brown street, Providence, R. I.

ACCREDITING SYSTEMS OF DIFFERENT STATE UNIVERSITIES.

The University of Alabama accredits any school of a certain standard in the State of Alabama upon the written application of the principal, submitting its curriculum. There are 23 accredited or auxiliary schools. The form of certificate required is as follows:

M ———, of ——— county, a young ——— years of age and of good moral character, having been a student of ——— for ———, and in a satisfactory manner having pursued the following studies: ———, which are substantially in accordance with the requirements for admission into the freshman class of the ——— course of the University of Alabama, is recommended for admission into that class.

The University of Arkansas, on the application from the principal of any high school, academy, or other institution, sends an officer of the university to visit and examine the organization and work of such school. Upon a favorable report, submitted in writing by the visiting officer, the school is declared by vote of the faculty duly accredited to the freshman class. There are 26 accredited schools.

Schools desiring to be accredited to the University of California are visited and examined by a committee of the academic senate, upon whose report the faculty acts. In 1901 there were 116 California schools on the accredited list. Certificates from a high school or other secondary school in another State or country may be accepted in favor of a recommended graduate thereof, provided said school has been examined and accredited by some college or university at which the entrance requirements are equivalent to those of the University of California.

The University of Colorado furnishes blank forms of application to those high schools desiring to be placed on the accredited list. The applications are considered in full meeting of the faculty. There are 31 accredited schools.

The University of Idaho sends a representative to visit and examine secondary schools.

The University of Illinois employs a high-school visitor, whose duty is to inspect the high schools of the State. The visitor is not sent to any school not already accredited unless a request is made for such visit. After inspecting a school the visitor reports upon it to the council of administration of the university, and upon approval the school is added to the list of accredited schools. There are 206 schools on the accredited list.

The high schools of the State of Indiana are examined from time to time by the State board of education, and to those that reach the required standard a commission is granted which recognizes them as preparatory schools to Indiana University. There are 176 commissioned high schools.

The schools accredited to the University of Iowa are subject to inspection by the university, which employs permanently an inspector of high schools. The accredited list contains 124 high schools and 19 other secondary schools. There are also 63 other high schools and 4 additional secondary schools whose certificates are accepted in so far as their work covers the requirements of the university.[a]

The University of Kansas has on its accredited list 113 high schools and 5 academies. In addition there are 30 high schools in the State which fall short of preparing for the freshman class by not more than the amount of two terms' work.

The University of Michigan, on request of the proper authorities, designates a committee[b] to visit a school and report on its condition. If the report of the committee is satisfactory the school is placed on the list of approved schools for a period not exceeding three years, reserving, however, the right to require another inspection, if circumstances seem to make an examination necessary. Graduates

[a] Calendar of the University of Iowa for 1901-1902, p. 175.
[b] Calendar of the University of Michigan for 1901-1902, p. 55.

of approved schools are admitted on the recommendation of the principal, made on a blank form furnished by the university.

Graduates of any Minnesota State high school that has been approved by the State high-school board after examination by the State high-school inspector appointed by the board will be admitted to the University of Minnesota without examination, provided (1) that the school maintain a full four-year course of high-school work; (2) that the applicant present the principal's certificate, showing the satisfactory completion of all the studies required for admission to the desired university course. Graduates who are deficient in not more than three half-year subjects may be excused from examinations in such subjects as the enrollment committee may decide. Any Minnesota high school or academy not under supervision of the State high-school board, but requiring for graduation a four-year course, exclusive of the common school branches, conforming essentially in distribution of time to the entrance requirements of at least one of the university courses, will, upon application, be inspected by a committee, and after favorable recommendation may be accredited, provided (1) that the school be open to inspection at any time by the university, and (2) that it take such supplementary examinations as may be prescribed from time to time. Graduates from schools in other States, whose diplomas admit to reputable colleges in the State in which the school is located, will be received subject to the regulations that apply to graduates of Minnesota State high schools.

On application to the University of Mississippi a committee of the faculty visits schools desiring to be affiliated. If the work of the school is approved by the faculty, after a favorable report by the committee, the name of the school is placed on the list of affiliated schools and its graduates admitted on the certificate of the principal. There are 68 schools on the approved list.

The University of Missouri employs an "Examiner of Schools" to facilitate the work of bringing the secondary schools into close connection with the university. The list of approved schools contains 107 names.

The inspection of high schools for the University of Nebraska is performed by an inspector of accredited schools appointed by the board of regents. The report of the inspector, together with the official reports of the schools, forms the data on which the university bases its action.

The Ohio State University inspects high schools through a committee of the faculty appointed by the president. Approved high schools must be reexamined at intervals not exceeding three years.

All approved State secondary schools in Tennessee are accredited schools of the University of Tennessee. The branches required to be taught in such schools are orthography, reading, writing, arithmetic, grammar, geography, history of Tennessee, history of the United States, Constitution of the United States, elementary geology in Tennessee, elementary principles of agriculture, elements of algebra, elements of plane geometry, elements of natural philosophy, bookkeeping, elementary physiology and hygiene, elements of civil government and rhetoric, or higher English. Practice shall be given in elocution or the art of speaking. Any other high school, academy, or institution whose course of study covers the branches required for admission to the university, may be put on the accredited list after application, examination by some officer of the university, and approval by the faculty. Such schools may offer Latin, Greek, or other good equivalents in lieu of the sciences provided in the secondary school course. The list of schools accredited to the University of Tennessee includes 39 schools in Tennessee and 18 schools in other States.

No school will be affiliated by the University of Texas before the president or some person designated by him shall have visited it and shall have rendered a

report concerning its equipment and its work. Graduates of approved schools are admitted on presentation of diplomas. There are 93 affiliated schools.

The University of Washington inspects the work of high schools through a committee of the faculty which visits schools desiring to be accredited. Graduates of accredited schools are admitted on certificate. The list of accredited schools includes 18 high schools and 5 academies.

The University of Wisconsin requires an inspection of accredited schools by a committee of the faculty.[a] The accredited list contains the names of 226 schools.

When a school approved by the academic council of Johns Hopkins University shall certify that a candidate has satisfactorily completed all the studies requisite for matriculation such candidate will be exempted from examination except in the following subjects: Trigonometry, analytic geometry, Cicero or Virgil (as the candidate may prefer), Latin prose composition, Homer or Herodotus (as the candidate may prefer), Greek prose composition, the minor courses in French and German, English, and science.

In nearly all cases where students are admitted from accredited, affiliated, or approved schools, the diplomas of such schools are not accepted as evidence of a candidate's fitness, but must be accompanied by the certificate of the principal, showing that the candidate has satisfactorily completed the studies required for admission.

LIST OF INSTITUTIONS ADMITTING STUDENTS ON CERTIFICATE.

The catalogues of the following-named institutions show that students are admitted to the freshman class on certificate. In some of the institutions included in this list an examination is required in some particular subject or subjects, as, for instance, in Cornell University an examination is required in English.

Alabama.—Alabama Polytechnic Institute, Howard College, Southern University, Lafayette College, University of Alabama.

Arizona.—University of Arizona.

Arkansas.—Ouachita College, Arkansas Cumberland College, Hendrix College, University of Arkansas.

California.—University of California, Pomona College, Occidental College, University of Southern California, Mills College, California College, Throop Polytechnic Institute, University of the Pacific, Pacific Methodist College, Leland Stanford Junior University.

Colorado.—University of Colorado, Colorado College, Colorado Agricultural College, State School of Mines, University of Denver.

Connecticut.—Trinity College, Wesleyan University, Connecticut Agricultural College.

Delaware.—Delaware College.

District of Columbia.—Columbian University, Georgetown University, Howard University.

Florida.—John B. Stetson University, Florida Agricultural College, Florida State College, Rollins College.

Georgia.—University of Georgia, Atlanta University, Emory College, Clark University.

Idaho.—University of Idaho.

Illinois.—Hedding College, Illinois Wesleyan University, Blackburn University, Carthage College, Armour Institute of Technology, University of Chicago, Eureka College, Northwestern University, Ewing College, Knox College, Lombard College, Greenville College, Illinois College, Lake Forest University, McKendree

[a] Catalogue of the University of Wisconsin for 1901-1902, p. 75.

College, Lincoln College, Monmouth College, Northwestern College, Rockford College, Augustana College, Shurtleff College, University of Illinois, Westfield College, Wheaton College.

Indiana.—Indiana University, Wabash College, Franklin College, De Pauw University, Hanover College, Butler College, Purdue University, Union Christian College, University of Notre Dame, Earlham College, Rose Polytechnic Institute, Taylor University.

Indian Territory.—Henry Kendall College.

Iowa.—Iowa College of Agriculture and Mechanic Arts, Coe College, Amity College, Luther College, Des Moines College, Drake University, St. Joseph's College, Parsons College, Upper Iowa University, Iowa College, Lenox College, Simpson College, State University of Iowa, Graceland College, German College, Iowa Wesleyan University, Cornell College, Penn College, Central College, Morningside College, Buena Vista College, Tabor College, Western College.

Kansas.—Midland College, Baker University, College of Emporia, Highland University, Kansas City University, University of Kansas, Lane University, Bethany College, Kansas State Agricultural College, Ottawa University, Kansas Wesleyan University, Cooper College, Washburn College, Fairmount College, Friends University, Southwest Kansas College.

Kentucky.—Central University of Kentucky, Georgetown College, Agricultural and Mechanical College of Kentucky, Kentucky University, Bethel College, Kentucky Wesleyan College.

Louisiana.—Louisiana State University, Tulane University.

Maine.—Bates College, University of Maine, Colby College.

Maryland.—Johns Hopkins University, Woman's College of Baltimore, Maryland Agricultural College, New Windsor College, Western Maryland College.

Massachusetts.—Amherst College, Boston College, Boston University, Smith College, Mount Holyoke College, Tufts College, Wellesley College, Williams College, College of the Holy Cross, Worcester Polytechnic Institute.

Michigan.—Adrian College, Michigan Agricultural College, Albion College, Alma College, University of Michigan, Hillsdale College, Hope College, Michigan College of Mines, Kalamazoo College, Olivet College.

Minnesota.—Augsburg Seminary, University of Minnesota, Carleton College, St. Olaf College, Hamline University, Macalester College, Gustavus Adolphus College.

Mississippi.—Rust University, Millsaps College, University of Mississippi.

Missouri.—Southwest Baptist College, Pike College, Christian University, University of Missouri, Central College, Westminster College, William Jewell College, Missouri Valley College, Park College, Washington University, Drury College, Central Wesleyan College.

Montana.—Montana College of Agriculture and Mechanic Arts, University of Montana, Montana State School of Mines.

Nebraska.—Bellevue College, Cotner University, Union College, Doane College, Grand Island College, Hastings College, University of Nebraska, Nebraska Wesleyan University, York College.

Nevada.—Nevada State University.

New Hampshire.—New Hampshire College of Agriculture and Mechanic Arts, Dartmouth College.

New Jersey.—Rutgers College, Seton Hall College.

New Mexico.—University of New Mexico, New Mexico College of Agriculture and Mechanic Arts.

New York.—Alfred University, Wells College, Adelphi College, Polytechnic Institute of Brooklyn, St. Lawrence University, Hamilton College, Elmira Col-

lege, Hobart College, Colgate University, Cornell University, College of the City of New York, Manhattan College, New York University, St. John's College, Niagara University, Clarkson School of Technology, Vassar College, University of Rochester, Union College, Syracuse University, United States Military Academy.

North Carolina.—University of North Carolina; Davidson College, Trinity College, Elon College, North Carolina College, North Carolina College of Agriculture and Mechanic Arts, Livingstone College.

North Dakota.—North Dakota Agricultural College, Fargo College, University of North Dakota, Red River Valley University.

Ohio.—Buchtel College, Mount Union College, Ohio University, Baldwin University, German Wallace College, Cedarville College, University of Cincinnati, Case School of Applied Science, Western Reserve University, Ohio State University, Defiance College, Ohio Wesleyan University, Kenyon College, Hiram College, Lima College, Marietta College, Muskingum College, Oberlin College, Miami University, Scio College, Wittenberg College, Heidelberg University, Otterbein University, Wilmington College, University of Wooster, Antioch College.

Oklahoma.—University of Oklahoma, Oklahoma Agricultural and Mechanical College.

Oregon.—Albany College, State Agricultural College, University of Oregon, Pacific University, McMinnville College, Pacific College, Willamette University.

Pennsylvania.—Western University of Pennsylvania, Lebanon Valley College, Beaver College, Moravian College, Dickinson College, Ursinus College, Lafayette College, Pennsylvania College, Thiel College, Juniata College, Franklin and Marshall College, Bucknell University, Allegheny College, University of Pennsylvania, Susquehanna University, Lehigh University, Pennsylvania State College, Swarthmore College, Villanova College, Washington and Jefferson College, Waynesburg College.

Rhode Island.—Rhode Island College of Agriculture and Mechanic Arts, Brown University.

South Carolina.—College of Charleston, South Carolina College, Furman University, Wofford College.

South Dakota.—South Dakota Agricultural College, Huron College, Dakota University, Redfield College, University of South Dakota.

Tennessee.—Grant University, Southwestern Presbyterian University, Greeneville and Tusculum College, American University of Harriman, University of Tennessee, Cumberland University, Washington College, Maryville College, Carson and Newman College, Roger Williams University, University of Nashville, University of the South, Sweetwater College.

Texas.—University of Texas, Agricultural and Mechanical College of Texas, Fort Worth University, Polytechnic College, Southwestern University, Texas Christian University, Austin College, Baylor University.

Utah.—University of Utah.

Vermont.—University of Vermont, Middlebury College, Norwich University.

Virginia.—Bridgewater College, University of Virginia, Emory and Henry College, Washington and Lee University, Richmond College.

Washington.—Vashon College, Washington Agricultural College, University of Washington, Puget Sound University, Whitworth College, Whitman College.

West Virginia.—Morris Harvey College, West Virginia University.

Wisconsin.—Lawrence University, Beloit College, University of Wisconsin, Milton College, Concordia College, Marquette College, Ripon College.

Wyoming.—University of Wyoming.

METHODS IN USE OF ACCREDITING SCHOOLS.[a]

By Prof. A. S. WHITNEY.
University of Michigan.

The time allotted for consideration of this subject necessarily limits me to a brief presentation of its main essentials. It has been deemed best, therefore, to confine the scope of this paper to a concise exposition of the origin and progress of the accrediting system, the present methods of accrediting schools, the methods of certificating students, and the general evaluation of the system as conceived and executed primarily by the University of Michigan, supplementing it with reports of methods in use in other institutions whenever sufficient differentiation obtains to cause any material modifications of the plans evolved. I shall make no attempt to set the merits or the demerits of the accrediting system over against those of the examination system as operating within the territory covered by this association. To do so would be to transcend the bounds circumscribed by the topic assigned me.

The accrediting system had its origin at the University of Michigan in a resolution adopted by the faculty in 1871 and confirmed by the board of regents in 1872—thirty years ago. It sprang from two apparently antagonistic causes: First, from an earnest desire on the part of the president and members of the faculty to cooperate with superintendents and principals of high schools, with a view to consolidating, strengthening, and elevating the entire system of the State; and secondly, from urgent solicitations of superintendents and principals of the leading high schools of the State for closer articulation with the university as an organic part of the educational system, to the end that each institution might react upon and stimulate the other for the benefit of each and the good of the whole.

In the early beginnings of the accrediting system a committee of the faculty, upon special invitation of superintendents and boards of education, annually visited the high schools and examined their courses of study, methods of instruction, scholarship of teachers and pupils, library and laboratory facilities, and prevailing intellectual and moral conditions. In addition, schedules of test questions, previously prepared for use of visiting committees, were assigned the various classes and their written answers submitted as confirmatory evidence of the character of the work accomplished. These findings were reported to the faculty, and upon their character was determined the future relationship between each individual high school and the university.

As time advanced and the number of schools seeking accredited relationship multiplied, this system was found burdensome and impracticable. The professors were too engrossed with their legitimate university duties to give sufficient time properly to conduct this work. In consequence the formal test examination fell into disuse, and the term of affiliated relationship was gradually extended to two or three years, according to the excellence of the school, the university always reserving the right to reexamine whenever, in its judgment, changed conditions might seem to warrant.

This system prevailed until three years ago, when stress of numbers, inadaptability of certain members of the faculty to do the work of inspection, and a desire for greater uniformity of standards and methods necessitated a change. Following the example of several of her sister institutions, the University of Michigan appointed a special official to take sole charge of inspection and to report his findings to a so-called diploma school committee, composed of heads of departments, with the president of the university as chairman. This plan of inspection now

[a] Address delivered at the annual meeting of the Association of Colleges and Preparatory Schools of the Middle States and Maryland at Baltimore, Md., and printed in the School Review for February, 1903.

obtains, in some form or other, in connection with all the great universities of the Northwest, except the universities of Minnesota and Indiana. The smaller institutions generally accept the standards set by the great universities of their respective States.

The University of Minnesota, as stated, has no special high-school inspector as such, but it attains practically the same ends through the State high-school board, an organization created by the legislature and endowed with certain specific powers and duties. This board appoints the State high-school inspector, determines the methods of examination and standards of scholarship, and approves or disapproves of the work of each individual high school according to the findings reported. If these findings are satisfactory, the high school is given a bonus of $400 from the State treasury as an aid and stimulus to further endeavor and is placed on the accredited list. Students graduated from such approved schools are, if properly recommended, admitted without examination into all the higher institutions of the State, including the State university. That the standards set for the high schools are of a high order is attested by the fact that the president of the State university is ex officio chairman of the State high-school board.

In Indiana the methods of procedure are widely divergent from those already described. In that State the inspecting and accrediting function is performed solely by the State board of education, the different members of the board apportioning the work among themselves. Graduates from the high schools thus accredited or "commissioned" are admitted without examination, when properly recommended, into the State university and all other high institutions of the State.

As stated above, therefore, the field work in connection with the great universities of the North Central States, with the exceptions named, is conducted at the present time by special inspectors. And, although representing different institutions, so systematic has the work become that the inspectors follow the same general methods of procedure, apply the same general principles of analysis, and seek the same general ends. Their methods differ somewhat in minor details, but not in essentials. The routine is practically as follows:

The inspector visits the schools without previous notification. He learns the population of the city, the total enrollment of the schools, the enrollment in the high school, and the number of teachers employed, both in the grades and in the high school. He acquaints himself with the teachers of the high school, inquires concerning their academic and professional preparation, the subjects they teach, and the number and average length of their daily class periods. He visits the class rooms, analyzes the work of the teachers, and endeavors to determine the efficiency of each by noting his aim and plan of lesson, his mastery of the subject, his skill in adapting the lesson to the needs and capacities of his pupils, his ability to analyze and classify difficulties, his power to attract and hold attention, his skill in the art of questioning, his assignment of the lesson; he also notes the manner in which the pupils have attacked the lesson, their habits of thought and study, and the general spirit and progress of the class. He examines the course of study, the text-books used, the library and laboratory facilities; he takes note of the plan of organization, the character and methods of discipline, and the intellectual and moral tone of the school; and he ascertains the average size of the graduating classes, the number of graduates attending higher institutions of learning, the number now preparing for such institutions, and the general attitude of the board of education, the patrons, and the community toward the school and toward educational affairs generally. Finally, he examines the structure, capacity, heating, lighting, and ventilating of school buildings.

All these facts and more are recorded by the inspector and reported back to the proper committee, or to the faculty, as a basis for determining what relationship

should exist between the high school and the university. In case, however, it is a high school seeking a renewal of accredited relationship, this report is supplemented by official records showing the ability or inability of the students representing this high school to pursue university work with profit. If all the conditions essential to a school of high grade, as indicated by the inspector's report and by the scholarship of the students of this school attending the university, are present, the high school is formally approved and placed on the accredited list; if these conditions are wanting, the school is rejected, and the reasons therefor are specifically given to the proper authorities. It should be remarked in this connection, however, that some universities, notably Chicago and Illinois, follow the plan of accrediting by subjects, approving some and disapproving others, while the universities of Michigan, Wisconsin, and Iowa regard the high school as a unit and accept it or reject it as such.

As to methods of certificating students to university authorities, there is much confusion and misunderstanding, especially among those unacquainted with the workings of the accrediting system. It is generally assumed that the possession of a diploma from an approved high school opens wide the doors of the university to all who may choose to enter. Such is far from the exact truth. At least four conditions must be fulfilled before an applicant can receive recognition at the hands of the university:

1. The applicant must have received his preparatory training in an accredited high school.

2. The applicant must be a graduate of an accredited high school. The university sets the stamp of its disapproval upon nonhigh-school graduates and will give them no recognition whatever. Only the finished high-school product receives consideration.

3. The applicant must present a regulation certificate, furnished by the university and properly filled and signed by the superintendent or principal of high school; this certificate states that he has completed all the work required for entrance to the university and specifies the branches pursued, number of weeks and of recitations per week devoted to each, text-books used, and the teacher's estimates of his scholarship in the several branches.

4. The applicant must furnish a recommendation from the superintendent, high-school principal, or faculty attesting their belief in his ability to pursue university work with pleasure and profit to himself and credit to the university. The aim of this provision is manifestly to throw the responsibility for his success back upon the high school where it properly belongs. The school knows, on the one hand, all about the student, his powers, capabilities, and impulses, and, on the other, all about the requirements of the university, and should, therefore, be able to judge accurately whether he is of university material.

It should be observed that after the first semiannual examination of the freshman year the records of scholarship attained by the students thus recommended are reported back to their respective high schools, and the credit or discredit, after making due allowances for changed conditions, is charged accordingly. So deeply is the responsibility felt by high-school authorities that they are wont to exaggerate on the side of conservatism. This is not only the testimony of superintendents and principals themselves, but it is demonstrated by the fact that every year numbers of students who have been refused recommendations by the accredited schools present themselves and enter the university by way of the examination door. This requirement has led not a few high-school authorities to grade the diplomas granted to the graduating classes as "A" and "B," the former entitling the holder to certificates of admission to the university and the latter withholding such privilege.

Having now briefly indicated the origin and early development of the accredit-

ing system, the methods of accrediting schools, and the methods of certificating students to university authorities, there remains to ask what is the effect of this system upon the university, upon the high schools, and upon the educational system of the State as a whole. From the standpoint of the University of Michigan, two features are worthy of consideration: First, the effect of the system upon scholarship, and, secondly, its effect upon attendance.

As to scholarship, little better can be done than to summarize a report made by a committee of the faculty appointed to investigate the standings of students admitted on certificate as compared with those admitted on examination for the first nine years of the existence of the accrediting system. This committee made a careful study of the examination records of all the members of the freshmen classes for the period named, and tabulated the results in such manner as to show separately the standings of those admitted on certificate and those admitted on examination—a study involving more than 1,000 students and more than 10,000 examinations. The committee refrained from examining the records subsequent to the freshman year, in the belief that one year in the university ought to obliterate the main distinctions arising from differences in preparatory schools. From the tables thus framed and classified the committee computed the percentages of scholarships from each class by dividing the number of examinations successfully passed by the number that, by order of the faculty, ought to have been passed. The following are ths results obtained:

Total number of students admitted on certificate	470
The percentage of scholarship	88.91
The total number of students admitted on examination	574
The percentage of scholarship	87.22

It will be observed that the committee found a slight balance in favor of admission by certificate, showing that the university was the gainer, rather than the loser, by the change. Unfortunately no systematic investigations have been made since that time. It is our firm belief, however, that a like investigation to-day would not result to the disadvantage of the certificated student.

As to the effect of the certificate system on the attendance at the university, there is not the slightest doubt in the minds of any conversant with its workings but that it greatly increases it. This is the unanimous verdict of high-school and university authorities, of the students themselves, and of high-school inspectors. It follows as a natural consequence from shortening and smoothing the pathway leading from the high school to the university and from bringing them into closer union and sympathy with each other. Two illustrations from many: A little more than a year ago the inspector responded to an invitation to examine the high school in the town of A. He was informed by the superintendent that there was no one preparing to enter higher institutions and no sentiment for such preparation, but that he desired affiliated relationship with the university for the purpose of creating and arousing such an interest. The school was examined and accredited in the usual way. This very act seemed to arouse such ambitions, and to open the door to such undreamed possibilities that three students entered the university in the fall and others went elsewhere.

Somewhat less than a year ago the high school in the town of B. was reexamined and rejected after having been on our accredited list for many years. Six students who were preparing to enter the university on certificate were thus deprived of the privilege and could now enter only on examinations. Of these six, one came and was successful; the other five sought institutions of lower grade. The school has now been reorganized and has made application for reexamination.

But it is from the standpoint of the high schools that the crowning virtue of the accrediting system is most marked, a fact wholly unrecognized and unappre-

ciated by the great majority of those unacquainted with the practical workings of the system. It has been deemed best, therefore, to point out definitely and specifically wherein the accrediting system reflects upon and exalts the high schools, even at the cost of overlapping and repetition.

1. *Its influence upon standards.*—Before a school can be accredited it must offer all the branches required at the university for admission; it must pursue them for certain periods of time, the minimum of which is specified; it must give suitable opportunities for library and laboratory work, and it must attain a certain fixed degree of thoroughness, vitality, and spirit of scholarship. The inspector comes, backed by all the authority and influence of a great university, examines these standards according to his definitely fixed ideals, and reports back to the proper authorities. Upon this report hang in a large measure the reputation, the influence, and the prestige of the school, and therefore a favorable outcome is highly prized. Inspectors are frequently requested by superintendents to examine their schools unofficially for the sole purpose of aiding them in marking and bettering their standards.

2. *Its influence upon the teaching force.*—After the inspector has examined a high school, as heretofore outlined, comes the conference. Here he explains to the superintendent or principal the conditions as he sees them, commending the good and pointing out the bad. He explains the theories of the university, changes in requirements for admission, and plans in operation in the best high schools, and he suggests ways and means for correcting deficiencies and laying solid foundations for scholarship. He advises also concerning the organization, the methods of discipline, the courses of study, library and laboratory facilities, text-books, and supplies. The inspector listens in turn to a statement of their difficulties, fears, hopes, and ambitions, and aids to the best of his ability in their proper solution. He meets the teachers if need be and gives them opportunity to ask for his criticisms, suggestions, and help, an opportunity of which they freely avail themselves. If the standards of the school are only moderately satisfactory or are too low to warrant establishment of accredited relationship, it is placed on the "nursing list" and reexamined the following year. If conducted frankly and sympathetically the conference hour can be made productive of immeasurable benefit.

3. *Its influence upon pupils.*—The influence of the accrediting system upon pupils has already been indicated. There needs to be added, however, that the opening of the university door to all properly accredited students is not the only potent influence at work among them. The repeated visits of the university inspector are of scarcely less importance. They arouse among the pupils of the average high school a spirit of inquiry concerning colleges and universities; they set them to thinking and to talking about going to college; they intensify their desires and stimulate their ambitions to make the trial. The very fact that a great educational institution will send an official to them adds dignity, importance, and seriousness of purpose to the work of the school and to the work of life. The pupils often ask questions concerning the university, the expenses of living, the opportunities for self-help, the methods of securing rooms, and of registering. These the inspector answers individually, in groups, or in a short address before the school, offering suggestions, encouragement, help.

4. *Its influence upon the board of education and the communities.*—The boards of education and the communities always desire the highest possible efficiency of their schools, and they have come to measure this efficiency by the recognition the schools receive at the hands of the university. They therefore cordially invite the university inspector, earnestly seek his opinions and advice, and give serious consideration to all his recommendations. Indeed, so thoroughly have they come to rely upon the university to mark the efficiency of their schools that I do not exaggerate when I say that there are few places in Michigan where a superintend-

ent or high-school principal can long maintain his position if accredited relationship, once established with the university, should be repudiated on reexamination.

As to the effects of the accrediting system upon the educational system of the State as a whole, I quote from the annual report of President Angell to the board of regents after an experiment of ten years. He says:

This innovation on old customs, like all innovations, and chiefly because it was an innovation, was met at once with severe criticisms, and especially by some distinguished educators in the older colleges, fearing, as was alleged, that such a system would bring down the standards of colleges. Experience, however, has proved that there was no ground for fear, except that the thing was new and not practiced in the mother colleges. Two facts are to be noted among the results: (1) The standard of preparation in the high schools, if affected at all, has been elevated rather than lowered; (2) the State system of education has become a reality. It is obvious that there can be no system, properly so called, without an actual and living connection and communication among its members. By calling for the visiting or examining committee of the faculty the high schools have been brought into that vital connection with the university which makes them parts of a natural organism and, so far as concerns our schools, our State system no longer exists merely on paper.

No one can look into the condition of these schools without feeling satisfied that this connection has had the effect both to animate their students to more earnest effort and to encourage and strengthen the teachers, while it has brought about a more perfect unity of plan and method in the schools of the State in general. In short, it gives to our schools, otherwise isolated, a bond of union and a center of life. We are convinced, as the result of an experiment of ten years, that this cooperative plan, especially if entered into by the few remaining schools, and thus perfected, will give a character of consistency, solidity, strength, and efficiency to the educational work of the State, which will leave nothing further to be desired but the uninterrupted operation and movement of the system.

At that time there were 16 schools upon the accredited list; to-day the number has swelled to 250. In a recent interview President Angell, in the light of the twenty years that have passed since that report was written, emphatically confirms the position there taken. He realizes that the accrediting system has its limitations the same as the examination or any other system; but that, taken as a whole, it is freest from objections, is the most productive, and the most logical of all systems yet devised.

One criticism presents itself. The admission of properly accredited students to the university without examination tends to belittle examinations as an educational factor. This, however, is incidental rather than essential, and the university is gradually awakening to the necessity of setting the stamp of its disapproval upon it.

In conclusion permit me to say that the colleges and universities of the territory covered by the North Central Association of Colleges and Secondary Schools are perfecting a plan looking toward a general recognition of the best high schools in the several States. When this plan is completed and put in execution, it will not be unlike this association in the breadth and uniformity of the work attempted.

CHAPTER XIII.

MISCELLANEOUS EDUCATIONAL TOPICS.

Contents.—The first American public school (W. A. Mowry).—Supervision in Massachusetts.—School supervision (C. A. Brodeur).—George Charles Holls (Henry Barnard).—The Brothers of the Christian schools in the United States.—Educational tendencies, desirable and otherwise (Andrew S. Draper).—Rural school libraries (Henry Sabin).—The Yale bicentennial celebration.—The kindergarten ideal of nurture (Susan E. Blow).—Joseph Le Conte (S. B. Christy).—Addresses at the Johns Hopkins University celebration.—Addresses at the installation of President Butler, of Columbia University.—Free text-books: Benefits, objections, and cost.—Technical education in Germany (V. C. Alderson).—Report on drawing in Western normal schools.

THE FIRST AMERICAN PUBLIC SCHOOL.[a]

By WILLIAM A. MOWRY, Ph. D.,
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We have now fairly entered upon the twentieth century. The United States of America as a nation is rapidly making important history. The events of the last year, of the last decade, of the last half century will hereafter play a conspicuous part in the annals of the world. To-day our territory extends from the Atlantic to the Pacific, covering the largest and most desirable portions of the north temperate zone in North America, to which we have added Alaska and our recently acquired islands between the Tropics in both the Atlantic and Pacific oceans. In less than three centuries from the first permanent English settlement in North America we have grown from English colonies to independence, and have established a government—a compound republic—which for a century and a quarter has steadily grown, increasing in territory, in population, in the intelligence of its people, in industry, and in wealth, until to-day the Stars and Stripes float over nearly 4,000,000 square miles of territory, and under our flag are protected the interests of nearly, if not quite, 85,000,000 people.

The broadening of our industries, the accumulation of wealth, and the ever-increasing growth of general intelligence are believed by many to be without parallel in the history of any of the nations of the world. Without doubt this Republic is to-day at least one of the strongest, most powerful, most successful of the nations.

Doubtless many causes have conspired to produce these great results. To understand present conditions we must go back to remote causes. To comprehend the growth, development, uplift of human society in these modern times we must go back to the great Reformation and to the Renaissance in Europe in the fifteenth and sixteenth centuries. We must give attention to the wresting of arbitrary power from sovereign rulers. We must read the history of the Anglo-Saxon race. We must have respect for those who secured Magna Charta from King John. We must study the establishment of the Protestant Church in England and the history of the English Bible. But perhaps more than all these, we must read carefully and attentively the story of the English Puritans. To under-

[a] Reprinted from Education, May, 1901. See in this connection an article by Dr. George Gary Bush entitled "The first common schools of New England," in the Annual Report for 1896–97, vol. 2, pp. 1165-1186.

stand the growth of modern ideas we must visit Bedford jail, look out upon the fires of Smithfield, read the annals of Scrooby, hear the sermons of John Robinson to his exiles in Leyden, cross the Atlantic with the *Mayflower*, the *Abigail*, the *Arbella*, and the *Mary and John*.

The settlement of Massachusetts by English Puritans has unquestionably exerted a great influence upon both the development of our own country and the history of the world.

The United States of America to-day has a civilization of its own. While in the main this is the same civilization that Great Britain shows at home and in her colonies, yet there are peculiarities, customs, interests, with particular modes of progress, which stamp the civilization and state of society in the United States as different from British or European conditions. We have many American institutions peculiar to our country and our Government. Perhaps, however, no one of them is so marked, so distinctively American, as that which is termed the American system of public schools. The topic that concerns us at the present time is the origin of this institution. Where did it originate? Which was the first public school in America? This is the question to which we must now devote our attention.

The term American system of public schools has acquired a fixed and definite meaning. It is a public or a free school. Free, not necessarily in the sense that the recipient of its benefits has nothing whatever to pay, for sometimes rate bills have been charged or the parents of the pupils have furnished board for the teacher, or they have provided wood for the schoolhouse stove. Free in this sense means open to all—that is, public. The school is for the entire public.

But this term means more than public. An endowed academy is a public school in one sense; it is free or open to the entire public of the place where it is established. But it is made so by an endowment. Such a school would not be a representative of the American public-school system. In addition to being open to the whole public, a representative school of this system must be supported at public expense. This support may come largely from the State, or the county, or the city or township, or the funds may be appropriated by all three. The essential features of this system are that the schools are for the children of all the people, and that they are supported either wholly or principally by taxation. A private school established by individuals or a collection of individuals—by a church, society, or guild, or endowed by individuals, churches, or guilds, whether with or without tuition—is not a representative of our public-school system. The principle of taxation lies at the bottom of the American public school.

The Puritans of Massachusetts Bay from the beginning of their colony felt that the church and the school were essential to the welfare of the State. The church they supported by a tax from the first. For this they had abundant precedent in the mother country. To support a school by taxation they had no precedent. They, however, very soon established one. Learning and virtue must go side by side in the New World.

As money in the new colony was not plenty, and the calls for taxation were numerous and frequent, they found it necessary to avoid direct tax whenever possible. Public schools, so called, they were familiar with in England. But those schools were so named because they were open to the public, churchmen and dissenters alike. Such were the schools at Rugby, Eton, and Harrow. In imitation of what the Puritans were familiar with in England, within six years of the settlement of Boston, Harvard College was founded at Cambridge, and the first steps were taken to establish a Latin preparatory school in Boston. Private schools sprang up at an early date in various places—in Virginia, Manhattan (or New York), and at different points in New England. Some of these will be considered later. We are looking for the first school which was established by the

public for the education of the youth of the locality and was supported by taxation. Let us, then, examine the claims of the school established by the voters of Dorchester, Mass., to which the Hon. Joseph White, secretary of the Massachusetts board of education, refers as the "first school in the world supported by direct taxation or assessment on the inhabitants of the town." In order to understand clearly the meaning of the particular taxation resorted to in this case, a bit of explanatory history will be necessary. Near the coast of the town of Dorchester was an island called Thompsons Island. It had been taken possession of by David Thompson in 1626, but he had retired from it before the permanent settlement of Boston and Dorchester. This island, on the 4th of March, 1635, was given by the act of the general court of Massachusetts Bay to the inhabitants of the town of Dorchester, "to enjoy, to them, their heirs and successors, which shall inhabit there forever," on condition that they pay to the treasury twelve pence yearly as rent. This island was apportioned by the town and set off in parts to the freemen of the plantation. The records of the town are too meager to tell us clearly whether every freeholder had a portion of the island set off to him, or whether it was divided between the principal citizens, freeholders or freemen. It is possible that every taxpayer had his share. It is, at least, clear that every one of the principal freeholders had a portion of the island allotted to him. At any rate this allotment was made by the town to more than seventy persons, and other evidence goes to show that this was probably about the number of freeholders in the plantation. These men receiving their portions of the island, larger or smaller, as the case might be, were termed "proprietors" of the island. It is to be observed that this word "proprietor" was everywhere understood at that time as meaning "freeholder" or "freeman;" that is, a voter.

With this explanation we now come to the establishment of the school. A town meeting was held in May, 1639, and provision was made for maintaining a school in the plantation. In order to avoid any misunderstanding the order that was passed at this town meeting will here be given in full:

It is ordered, the 20th of May, 1639, that there shall be a rent of twenty pounds a year forever imposed on Thompson's Island, to be paid by every person that hath propriety in the said island, according to the proportion that any such person shall from time to time enjoy and possess there, and this toward the maintenance of a school in Dorchester. This rent of twenty pounds yearly to be paid to such a schoolmaster as shall undertake to teach English, Latin, and other tongues, and also writing. The said schoolmaster to bee chosen from time to time by the freemen, and it is left to the discretion of the elders and the seven men for the time being whether maids shall be taught with the boys or not. For the levying this twenty pounds yearly from the particular persons who ought to pay it according to this order, it is further ordered that some man shall be appointed by the seven men for the time being to receive this, and on refusal to levy it by distress, and not finding distress, such person as so refuseth payment shall forfeit the land he hath in propriety in said island.

Twenty pounds a year was the amount of this tax upon the people of Dorchester for the support of the public school. Four years and more later the same amount, £20, was voted to the schoolmaster by the town of Dedham, and the salary of the schoolmaster in that town remained £20 per annum until the close of that century, when it was made £25. In 1635 the town of Newbury voted to pay "£24 by the year to maintain a free school at the meetinghouse." It would seem, therefore, that £20 a year was a fair salary at that time for the Dorchester plantation to pay its schoolmaster.

The next step taken by the town was to secure a teacher. Rev. Thomas Waterhouse was the first teacher of this school. In what month or upon what day of the month the school was first opened we can not now tell. The records are too meager to give us the necessary information, but it is clear that the school was opened at some time during the summer or early autumn of that year, 1639. In

the town records is this entry, made of a vote in town meeting on the 31st of October, 1639: "It is ordered that Mr. Waterhouse shall be dispensed with concerning the order in the charge of twenty pounds yearly rent to be paid for Thompson's Island toward the school, where he is bound to teach to write, it shall be left to his liberty in that point of teaching to write, only to do what he can conveniently therein." This vote would seem to show that the school was at that time in operation, and that the people of the town trusted to the judgment of Mr. Waterhouse, the master, in reference to the question how much time should be used in teaching the pupils to write.

The school was now established. The tradition has been handed down that a log schoolhouse was built, located near the corner of Pleasant and Cottage streets, just at the western foot of Meetinghouse Hill. There Dominie Waterhouse kept the school and taught the boys "English, Latin, and other tongues," and, so far as he deemed it advisable, "writing." A succession of eminent teachers followed him. A succession of eminent men here received the rudiments of their education. Here Rev. James Blake Howe taught young Edward Everett to read, to write, and to spell. Mr. Howe was the first teacher in the new brick schoolhouse built on Meetinghouse Hill in 1798. Here Edward Everett, when a small boy, practiced declamation.

The plan of taxing this island, instead of the entire property of the town, was a device which, doubtless, when it was adopted, seemed to the voters a better plan than to tax the entire property of the town for this special purpose. After a few years, however, it was found in practice that the collection of these rents or taxes on the small bits of land which had been apportioned among the taxpayers or freemen of the town was attended with much difficulty. It was found also that the tax which could be collected was not sufficient in amount to carry forward the school successfully. Moreover, the people found that the income from their several portions on the island was not sufficient to make it profitable. For these and other reasons, on the "Seaventh day of the Twelfth moneth in the yeare 1641" (N. S., Feb., 1642), the proprietors of the island made a direct conveyance of the island to the town for the special support of the school. By this conveyance they expected that the school would be more effectually and better maintained. This conveyance was made in the following terms:

The said island and all the benefits and profits thereof, and all their right and interest in the same shall be wholly bequeathed and given away from themselves and their heirs unto the town of Dorchester aforesaid, for and toward the maintenance of a free school in Dorchester aforesaid for the instructing and teaching of children and youth in good literature and learning.

This document further says:

It is hereby ordered and the present doners do hereby declare that it is their mind that the said island shall be let, assigned, and set over only to such tenant or tenants as shall by land or otherwise sufficiently secure the payment of the rent thereof for the use and behoof of the school aforesaid in such manner and form and at such time and times of payment as shall be agreed upon by and between the inhabitants of Dorchester or their agents, on the one party and the said tenant or tenants on the other party.

And for avoiding the trouble that might arise in collecting and gathering the same rent by so multitude of tenants that ought to pay the same, and to the intent that the rents which shall become due for the said island may be the better and more readily collected and paid, it is hereby ordered and declared that the said island shall never be let out to so many tenants as shall be above ten in number at once.

To this deed of conveyance seventy-one persons, "present inhabitants," subscribed their names, and the following memorandum was appended to the document:

That [illegible] the subscribing of these presents the doners aforesaid did further agree and declare that it was and is their mind and true intention that if at any

time there shall happen and fall out a vacancy of a schoolmaster by means of death or otherwise, yet the rents and profits issuing and arising of the said island shall be converted and applied only to and for the maintenance and use of the school either by augmenting the stipend for a schoolmaster or otherwise, but not for any other use.

The author of the History of Dorchester says: "So far as the writer is informed this was the first public provision made for a free school in the world by a direct tax or assessment on the inhabitants of a town." Hon. Joseph White, in the fortieth annual report of the secretary of the board of education for Massachusetts, already mentioned, in referring to the establishment of this school by the town of Dorchester uses the following language:

This action of Dorchester, which was two years earlier than that of Boston for a similar object, is claimed by the historian of the town and by other distinguished writers to be the "first public provision made for a free school in the world supported by a direct taxation or assessment on the inhabitants of a town."

The school was now established, and it has continued in successful operation from that time to this day. A new question now presents itself to the inhabitants of the town: Who shall be charged with the management of this school? At first it was directly in the hands of the town meeting. Then the details would naturally be directed by the "seven men;" that is, the selectmen.

At the March meeting in the year 1645, just two months after the town of Dedham had passed their initial vote looking toward the establishment of a school in that town, the freemen in Dorchester voted to adopt "rules and orders concerning the school," and these rules were confirmed by a majority vote of the inhabitants of the town present at the meeting.

This first public school after the American idea was now well established and had been in successful operation for several years. It was placed in charge of a managing board such as we to-day call a school committee or a board of education, or as in Pennsylvania, school directors. In order that there may be no misunderstanding or misapprehension we will pause here to examine various claims made for other places.

Our system of public schools to-day is so important and so popular, so thoroughly intrenched in the affections of the people of our whole country, that a widespread and deep interest exists in this question of when and where the first of these public schools started. About seven years ago Judge Draper, then of New York State, published some articles in the Educational Review, in which, with great boldness, he claimed that this American school system originated among the Dutch at Manhattan, now New York City.

At Manhattan in 1633, among the officials of the Dutch West India Company, was Adam Roelandsen, "the schoolmaster," and Mr. Barnard, in his American Journal of Education, 1862, says: "And the school which he taught, it is claimed, is still in existence in connection with the Dutch Reformed Church." But this was a private school and was not supported by taxation. Indeed, all the schools established in these English colonies in America prior to 1639 were private schools. Taxation is essential to the generic idea of the American system of public schools.

Prior to this Manhattan school was one established at Charles City, Va., as early as 1621 by Rev. Patrick Copeland, who raised by subscription a large sum of money to found "a free school." The school was entirely a private school, not managed by the plantation nor supported by public money.

The Boston Latin School appears to have been begun in 1635, but there seems to be a lack of evidence that it received the support of the town till 1641. The first step, however, was taken in behalf of this school by the town, in that it elected the teacher in a legally warned town meeting. But, like many other cases, it is

clear that the effort at first was to support the school on "a foundation" like the schools of old England at Eton, Westminster, Rugby, etc.

The records of Charlestown have the following: "1636, June 3, Mr. Witherell was agreed with to keep a school for a twelve month, to begin the eighth of August and to have forty pounds this year." The record fails to give us the needed evidence that the school was supported by taxation till after the Dorchester people had set the example. This one vote is all the record we find in the case. If this vote in 1636 by which "Mr. William Witherell was agreed with to keep a school for a twelve month, to begin the eighth of August and to have forty pounds this year," was passed in town meeting and not in a meeting of the proprietors simply—if the same can be considered as conclusive evidence that the school was kept at that time and that the forty pounds to be paid to Master Witherell was raised by taxation, then Charlestown has the priority. But is this one vote conclusive? Would the courts render a verdict on such meager evidence? Indeed, if the school were so kept and the money had been raised by taxation, would there not be, inevitably, various other records concerning it? But there is, so far as I know, no evidence that the town supported the school by taxation till long after 1640.

Mr. Saltonstall, the first mayor of Salem, has claimed that that town had the honor of leading in the establishment of public schools. He claimed that a grammar school was founded in 1636. Mr. Small, superintendent of the schools in Salem, in his report for 1875 says: "The date of its foundation was 1637, according to the facts given by Felt in his Annals of Salem." There is, however, no vote of the town on record relating to a public school till January, 1640, when at "a general town meeting young Mr. Norris was chosen by this assembly to teach school."

The town of Newbury in 1639 granted ten acres of land to Anthony Somerby "for his encouragement to keep school one year." But the first notice of the town's intention to build a schoolhouse or to support a teacher at their expense was in 1652, and the next year (1653) it was ordered "that the town pay twenty-four pounds by the year to maintain a free school," against which vote seventeen persons "desired to have their dissents recorded."

Newport, R. I., established a school in August, 1640, at which time Rev. Robert Lenthall was "called by a vote of the freemen to keep a public school for the learning of youth, and for his encouragement there was granted him and his heirs one hundred acres of land and four more for a house lot." It was also voted that "one hundred acres should be laid forth and appropriated for a school for encouragement of the person sent to train up their youth in learning, and Mr. Robert Lenthall, while he continues to keep school, is to have the benefit thereof." This was evidently, from subsequent entries in the town records, a "Latin school" or "grammar school" in the old English sense of the term, and this rent was applied to reduce the expense to poor scholars. Barnard says: "The children of the rich were provided for in private schools or family teaching, and not a few were sent to England for their education."

It has been claimed that the first public school in America was at Dedham. The proof is clear that "the founders of Dedham at a town meeting held on January 1, 1644, old style (1645 N. S.), forty-two persons being present, whose names are given in the record, passed the following vote, viz:

The said inhabitants, taking into consideration the great necessity of providing some means for the education of the youth in our said town, do with a unanimous consent declare by vote their willingness to promote that work, promising to put to their hands to provide maintenance for a free school in our said town. And further do resolve and consent, testifying it by vote, to raise the sum of twenty pounds per annum towards the maintenance of a schoolmaster to keep a free school in our said town.

The school was without doubt established and some years later a schoolhouse was built. Schoolmasters were from time to time employed, and thus Dedham takes her place with these other sister towns in the establishment of the American public school. It is clear that this school thus early established in Dedham was a free school, a public school in the proper sense of these terms, being supported by a distinct tax.

These first schools were inaugurated by the several towns, each acting for itself. In 1647 the system was legalized and made obligatory by a school law passed by the general court. This law made it compulsory upon the town to support public school and to make education universal and free. Of this school the late Hon. John W. Dickinson says: "As this was the first law of the kind ever passed by any community of persons or by any State, Massachusetts may claim the honor of having originated the free public school." This law, however, only made compulsory upon all the towns that which had been voluntarily undertaken by a number of them.

In this law we find the following:

It is therefore ordered that every township in this jurisdiction after the Lord hath increased them to the number of fifty householders shall forthwith appoint one within their town to teach all such children as shall resort to him to write and read, whose wages shall be paid either by the parents or masters of such children or by the inhabitants in general, by way of supply, as the major part of those that order the prudentials of the town shall appoint; provided those that send their children be not oppressed by paying much more than they can have them taught for in other towns; and it is further ordered that where any town shall increase to the number of one hundred families or householders they shall set up a grammar school, the master thereof being able to instruct youth so far as they may be fitted for the university; provided that if any town neglect the performance thereof above one year that every such town shall pay five shillings to the next school till they shall perform this order.

The Massachusetts system of education was now in full operation, with enactments for elementary English schools, secondary classical schools, and the college at Cambridge already established.

We have seen that a number of the towns had previously established their own schools. The system was now made universal and compulsory.

It would not be germane to our purpose to follow the history of this Dorchester school further. Let it suffice to say that the school became permanent and was never abandoned. This identical school has had a continuous existence to the present day. As the town grew other schools were established. Thompsons Island, whose original proprietor was David Thompson, then dead, was claimed a few years later by his son and heir, John Thompson. The general court, after due trial, decided in favor of the claim of John Thompson and nullified its grant to Dorchester, turning the property over to John Thompson as its legal owner. Subsequently Dorchester appealed to the general court with a request that the court would grant other lands in place of Thompsons Island thus taken from them. October 18, 1659, the general court granted the petition in the following vote:

The deputies think meet to grant this petition, viz: A thousand acres of land for the end mentioned in this petition, where they can find it according to law, with reference to the consent of our honored magistrates hereto.

WILLIAM TORRY, *Clerk.*
EDWD RAWSON, *Secty.*

Consented to by the magistrates.

On the 14th of November the selectmen of Dorchester "Impowered Mr. Clarke and Henry Woodward to search and stake out a farm of one thousand acres of land granted unto the town of Dorchester for the use of a school by the order of the general court held at Boston the 18th of October, 1659."

Nearly sixty years, however, elapsed before the tract thus granted was located

(1717) and taken possession of by the town. It was then located in what was afterward called Lunenburg, in Worcester County. A committee chosen to examine the quality of the land reported in the year 1727 that they found "upon a careful review thereof the north side to be good land, but the south side to be uneven and mean land." This land the town sold at public auction on the 4th of March, 1733-34, to Benjamin Bird, of Dorchester, for the sum of four hundred pounds.

In addition to the above-mentioned grant by the general court of 1,000 acres of land for the public school in Dorchester, the inhabitants of that town in 1657 voted to appropriate 1,000 acres of her own soil for the same high and laudable purpose. Five years later four men were chosen "to look out some convenient place or places for the laying out" of the said land. It is said that in the latter part of the summer they rode out into the country, "and coming to a place above Dedham," did agree "to take up three hundred acres at one place, namely, beginning at that place where the Dedham and Dorchester line meets with the Neponset River, and so to come down as far as three hundred acres will expend, both in length and in breadth, as the conveniency of the land will afford when it is laid out by measure."

Forty years afterward the remainder of this grant was laid out near the Plymouth Colony line, by the Bridgewater road, halfway between Boston and Taunton, and bounded by Halfway Brook, near Woodcock's well, the Rehoboth road, etc. It was composed of several different lots, which were, however, in the same neighborhood. This "school farm," as it was called, was rented to different persons and afterwards sold for the benefit of the town.

One little incident in connection with the sale of this land deserves notice. Eight hundred acres of it were sold in 1772 to Timothy Stevens for £284 13s. 4d. Within a short time this Stevens sold out his eight hundred acres to different persons for more than three times what he paid for it. The historian naively adds, "This was not the first nor the last time public property has been thus disposed of."

Such were the beginnings of our New England public-school system. From time to time appropriate legislation was enacted, for the general court of this Commonwealth has always jealously guarded the interests of education. The institution which was thus early planted here upon the west coast of the Atlantic has from time to time extended westward. The English settlers here were pioneers. The pioneers pushed westward until they had occupied the territory of New Hampshire, subdued the land beyond the Green Mountains in Vermont, made settlements upon the hills and in the valleys of the Berkshire region, dotted everywhere with farmhouses western Connecticut, leaped over the Dutch settlements in New York, planted freedom and education in the territory northwest of the Ohio, covered the plains of the two great valleys of the Mississippi and the Missouri with cornfields and wheatfields, and finally, passing over the summit of the continent, they spread New England people and New England principles "where rolls the Oregon," and even to the Pacific coast. And everywhere that these pioneers from New England went they planted the church and the schoolhouse. The American public-school system was thus extended over the whole Northwest on this side of the mountains, and beyond them in Oregon and Washington.

But there were two civilizations from the very start in the English colonies of North America. Plymouth and the Bay Colony represent the Roundheads; Virginia the Cavaliers. In an educational address at St. Albans, Vt., in 1881, Dr. J. L. M. Curry, in speaking upon the topic "Education in the South before the civil war," said:

In proportion to the population, taking man for man, negroes excluded from the population, the South sustained a larger number of colleges, with more professors

and more students and at a greater annual cost, than was done in any other section of the Union. The same was true of the academies and private schools. * * *

In the matter of public schools, sustained by taxation and free to all who chose to attend, the South was far behind the North in the provision made for universal education. No plans adequate for universal education existed.

It is a great pleasure to quote further from Dr. Curry's address as follows:

When the Confederate soldier furled his flag at Appomattox there was not a Southern State that had a system of public schools; but now, in organic law and in statutes, universal education is recognized as a paramount duty. The newspaper press gives intelligent and effective support; party platforms incorporate public schools in the political creeds; State revenues are appropriated; local communities levy taxes, and scarcely a murmur of dissent is heard in opposition to the doctrine that "free government must stand or fall with free schools."

This was said in 1881, eighteen years ago. To-day it is true that every State in this Union and every organized Territory has established by law and in good working condition a system of universal education, based upon the American plan of public schools supported by taxation.

Let us pause for a moment and contemplate this gigantic result. A small plantation, situated on the eastern shore of North America, for the first time in the history of mankind, taxes itself to support a school where all the children, rich and poor, high and low, plebeian and patrician, shall receive at public expense the rudiments of an education. That was the beginning. As a result to-day we have a nation holding sway from the Atlantic to the Pacific, with its southern borders upon the torrid zone and its northern extremity in the Arctic Ocean, embracing 75,000,000 people with one single system of education, supported not by a central government, but by the people themselves, through taxation upon their own property, in every State, in every county, in every municipality. This is something never before witnessed in the history of the world; an achievement in a quarter of a single millennium greater than any the sun hitherto ever shone upon. To quote once more from the address already alluded to from Dr. Curry. He said:

Let me affirm with emphasis, as an educator, as a patriot, as an American, that on universal education, on free schools, depend the prosperity of the country and the safety and perpetuity of the Republic.

The exigencies of the present time seem to be favorable for the cultivation by some persons of pessimistic views concerning the future prospects of our Government and our people. Of course, governments, like individuals, find here and there disappointments and disasters. In ancient times empires arose, flourished, decayed, and were swept away. Revolutions have taken place. Dynasties have been overthrown. In our own country one political party succeeds the other in the management of our Government, both State and national. Yet it is safe to say that no careful student of history ever ought to be a pessimist. The progress of the race is steadily and constantly upward and onward. No one need to lie awake at night for fear that our national bark is to founder in the deep sea, or break to pieces upon the rocks of some inhospitable coast. Doubtless there are dangers ahead. We are to-day confronted with many serious problems, but there have been pessimists always, and serious problems are always confronting a brave and prosperous people. Our fathers had them and overcame them, and their fathers overcame them. Like the poor, we shall have them with us always.

From the beginning, however, the Anglo-Saxon race has been equal to any emergency. It has again and again overcome obstacles, dangers, and difficulties, which to many minds have seemed to threaten prosperity, and even existence itself. From the beginning of these English settlements, nearly three centuries ago, dangers, difficulties, adverse circumstances have always threatened. It is equally true that the dangers have always been averted and the problems success-

fully solved. The same will be found true now. This hardy race shall triumph. American civilization is the hope of the world. The public school is the corner stone of our national superstructure. We shall find means adequate to the ends. Let us not forget, however, that the means must be used to accomplish the ends desired. It is highly necessary that all the people recognize the value and the importance not only of education in general, but especially of the institution known as "The American system of public schools."

SUPERVISION IN MASSACHUSETTS.

PROVISIONS OF THE LAW RELATING TO SUPERINTENDENTS.

[From "The revised laws of Massachusetts relating to public instruction. Enacted by the legislature November 21, 1901."]

SUPERINTENDENTS OF PUBLIC SCHOOLS.

SEC. 40. The school committee of a city or town which is not within an existing union for the employment of a superintendent may, and after the first day of July in the year nineteen hundred and two, shall, at the expense of the city or town, employ a superintendent of schools, who, under the direction and control of the committee, shall have the care and supervision of the public schools. The compensation of the superintendent shall not be less than one dollar and fifty cents for each day of actual service, and shall be determined by the school committee.

SEC. 41. Two or more towns may, by a vote of each, form a district for the purpose of employing a superintendent of public schools therein.

SEC. 42. Such superintendent shall be annually appointed by a joint committee, composed of the chairman and secretary of the school committee of each of the towns in said district, who shall determine the relative amount of service to be performed by him in each town, fix his salary, apportion the amount thereof to be paid by the several towns and certify the same to each town treasurer.

SUPERINTENDENTS OF SCHOOLS FOR SMALL TOWNS.

SEC. 43. The school committees of two or more towns the valuation of each of which is less than two million five hundred thousand dollars, and the aggregate number of schools in all of which is not more than fifty nor less than twenty-five, and the school committee of four or more towns the valuation of each of which does not exceed two million five hundred thousand dollars, without reference to the minimum limit in the aggregate number of schools aforesaid, may, and after the first day of July, in the year nineteen hundred and two, shall, form a union for the purpose of employing a superintendent of schools. Such union shall not be dissolved for three years after the date of its formation except by a vote of a majority of the towns constituting the union, nor shall it be dissolved for the reason that the valuation of any one of the towns shall have so increased as to exceed two million five hundred thousand dollars, nor for the reason that the number of schools shall have increased beyond fifty or, in a union of less than four towns, shall have decreased below twenty-five.

SEC. 44. The school committees of such towns shall be a joint committee, which, for the purposes of such union, shall be the agents of each town therein. The joint committee shall annually, in April, meet at a day and place agreed upon by the chairman of the committees of the several towns comprising the union, and shall organize by the choice of a chairman and secretary. They shall choose, by ballot, a superintendent of schools, determine the relative amount of service to be performed by him in each town, fix his salary, apportion the amount thereof to be paid by the several towns, and certify it to each town treasurer.

SEC. 45. When the chairman and secretary of such joint committee certify to the auditor of accounts under oath, that a union has been effected, that the towns, in addition to an amount equal to the average of the total amount paid, or to the amount paid for each child, by the several towns for schools during the three years then last preceding, unitedly have appropriated and raised by taxation not less than seven hundred and fifty dollars for the support of a superintendent of schools, and that a superintendent of schools has been employed for one year, a warrant shall, upon the approval of the certificate by the board of education, be drawn upon the treasurer and receiver-general for the payment of twelve hundred and fifty dollars, three-fifths of which shall be paid for the salary of such superintendent, and two-fifths thereof shall be apportioned and distributed to the towns forming such union on the basis of the amount appropriated and expended for a superintendent in such towns for the preceding year and shall be paid for the salaries of teachers employed in the public schools therein.

SEC. 46. There shall be annually appropriated by the Commonwealth such amount as may be necessary to carry out the provisions of the three preceding sections.

SEC. 47. Towns whose valuation exceeds the limit fixed by section forty-three may participate in a union formed under the provisions of said section, in the same manner and subject to the same terms, conditions, and benefits as towns having such limited valuation, except that the allowance by the Commonwealth in aid of said union, as provided in the preceding section, shall not be made to the entire union, but shall first be apportioned to the several towns upon the basis of the amount appropriated by them, respectively, for the support of a superintendent of schools for the preceding year, and the warrant upon the treasurer and receiver-general shall then be drawn in favor of and only for the portions so assigned to those towns of the union whose valuation at the time of said union did not exceed the limit provided in section forty-three.

SEC. 48. If the valuation of a town in a union formed under the provisions of section forty-three or of the preceding section shall so increase as to exceed three million five hundred thousand dollars, such increase shall have the same effect as if the valuation of said town had exceeded two million five hundred thousand dollars at the date of the formation of such union.

DISTRICT SUPERVISION.

[Reprinted, with some changes in arrangement, from the 64th and 65th reports of the Massachusetts Board of Education (1899–1900 and 1900–1901), Hon. Frank A. Hill, secretary.]

Development of district supervision.—The system of district supervision in Massachusetts—that is, of the supervision of the public schools in a group of towns by a single superintendent—was established by an act of 1888. Previous to that date there were several instances of two towns employing the same person as superintendent, but, as there was no aid from the State, only towns of considerable means could resort to the plan. It was therefore beyond the reach of most of the towns of the State. Under the legislation of 1888 the smaller towns were encouraged to establish superintendency districts. To guard against the employment of inferior persons, the minimum salary of the district superintendent was fixed at $1,250. Of this the State paid $500; it also gave in addition $500 toward the salaries of teachers in the district. Amendments of the legislation of 1888 were made by acts of 1890 and 1891, the principal change being an increase of the superintendent's salary to $1,500, the State contributing $750 thereof. An act of 1898 codified the previous laws and extended their scope somewhat. In 1900 an act was adopted by the legislature making the employment of superintendents of schools the universal and permanent policy of the State after July 1, 1902.

The method of educational progress.—The history of supervision in Massachusetts illustrates the way in which many of the State's great educational steps have been taken. At first the towns feel their way to a new method of supervising the schools by employing a paid expert for the service. They do this without any special sanction from the legislature, but out of that reserve of authority which they assume to have in the general authority granted them by the State to manage their schools. The method proves successful, whereupon the legislature formally authorizes the towns to adopt it if they choose to do so. Under this formal authority other towns take similar action. Meanwhile there is an undercurrent of conviction that the State ought not to force the plan upon towns—certainly not so long as there is any widespread failure on their part to utilize it. In time, however, a large proportion of the State is won over to the plan. Then the people conclude that it has been sufficiently tested and that the good of the schools requires it to be made mandatory and universal. It is a slow process; it has its disadvantages. But there is one superlative merit—a good principle worked out and fixed in this way rests on that solidest of foundations, the experience and intelligence of the people. The Massachusetts system of district supervision is the most successful yet devised in the United States for reaching the small towns; and the act of the legislature of 1900, that, in addition to its mandate that every town shall employ a superintendent of schools, makes it the duty of every eligible town to provide for this kind of supervision, is the most promising school legislation of recent years. Energies may now be more fully directed to improving the quality of the supervision.

It will be noted from the statute that it is no longer necessary for the towns to consider in town meeting questions relative to the formation or the dissolution of superintendency unions. Whatever authority they exercised in this way under earlier legislation has been transferred to the school committee; and very properly, now that the State has decided to require all towns, through unions or otherwise, to employ superintendents of schools. The question of expediency having thus been settled by the State itself, only details of procedure are left to be acted upon. Obviously these can be better handled in school committee than in town meeting. In this substitution of State authority for that of the town, as well as in the very arguments used for and against the State policy, history has repeated itself. It was, for instance, once optional with the town whether it should have a school

committee or not. In many towns the selectmen managed the schools, as they did everything else. After numerous towns had voluntarily appointed school committees, and shown the worth of such supervision, the State in 1826 decided that what was good for these towns was good for all, and so directed that thereafter every town should choose a school committee. There were towns that chafed under this mandatory policy, and the next legislature was beset with petitions to repeal it, but to its credit it stood firm. To-day a petition for such repeal would be looked upon as preposterous. Nay, in colonial and provincial times there were towns in which such things as appointing teachers, fixing their salaries, and making rules for the schools were not delegated to selectmen or special committees at all, but were settled in open town meeting—the most democratic and primitive way of all, the town being a committee of the whole, as it were, for the purpose. It clears the situation for the school committee to understand that henceforth it has the same sort of authority in employing a superintendent of schools as in employing a teacher. It is for the school committee to select the one as the other, to determine what grade of qualifications it shall demand in each, and to fix upon the compensation that, in its judgment, will command the qualifications desired. In the case of the district superintendent, however, this authority of the school committee has to be exercised jointly with other school committees, and within the limitations of the district superintendency law. It is now as much the duty of the town to appropriate money enough to cover the superintendent's salary as the salaries of teachers.

Inasmuch as nearly all the towns whose valuation exceeds $2,500,000 already have superintendents, the new law is practically of chief concern to towns under that valuation that have not yet effected the necessary unions. Such unions can be better brought about by school committees than by towns acting in town meeting.

Status of towns whose valuation comes between $2,500,000 and $3,500,000.—The law provides that when the valuation of towns in superintendency districts rises above $2,500,000 they may nevertheless remain in such districts and receive State assistance until their valuation reaches $3,500,000. There were 30 towns whose valuation May 1, 1900, came between these limits.

The superintendency arrangements of these 30 towns are as follows:

1. Four employ superintendents on full time.
2. Two employ superintendents in conjunction with other towns, none of them receiving aid from the State.
3. Ten are in superintendency districts and are aided by the State.
4. Three that do not receive aid from the State are in districts with towns that do receive aid.
5. Six employ the high school principal as superintendent also.
6. One employs a superintendent on part time.
7. Four are without superintendents.

All of the foregoing towns, could they have entered superintendency districts when their valuation was under $2,500,000 each, might have been in them at the present time, with aid from the State. As it is, however, 13 are now in districts, 10 with aid and 3 without, the latter having entered districts after passing the limit of $2,500,000, while 17 are outside. There is no question but that some of the unaided towns stand more in need of help than some of the aided.

Some towns employ the high school principal as superintendent also, reasoning that if they unite the two offices in one person they can afford to pay a higher salary, and so command higher qualifications. The reasoning is correct so far as it goes. But if these towns were in superintendency districts, they probably could afford to utilize the principal's superior qualifications in the exclusive service of the high school. The work of the high school, and particularly of the high

school that must get along with only two or three teachers, is so exacting that it is not good policy to add to the principal's duties those of a superintendency. The danger is that one side of his work or the other, more likely both, will suffer, let him be never so able.

As to superintendencies that command but a portion of the time of persons engaged in other pursuits, at a compensation but little more than nominal, it may be said, without the slightest reflection upon the holders thereof, who doubtless render a full equivalent or more for their humble pay, that they do not conform to the unwritten standards already set for them in the general practice of the State.

Duties of the superintendent.—The statutes do not define the duties of the superintendent; they simply provide that he shall have, under the control and direction of the school committee, the care and supervision of the public schools. Inquiries were recently made to find out the extent, in practice, of the authority granted to superintendents in Massachusetts by the school committees. The following table embodies the results of these inquiries:

Table showing the duties performed by superintendents of schools in 233 towns and cities of Massachusetts, and the degree of authority exercised.

Duties.	Number of towns in which certain degrees of authority are exercised by superintendents.				
	None.	Advisory.	Joint.	Full.	Unanswered or uncertain.
1. Selection of text-books	8	85	44	92	4
2. Selection of reference books	9	88	38	93	5
3. Selection of apparatus	6	81	35	103	8
4. Making of course of studies	3	41	21	164	4
5. Nomination or certification of teachers	19	67	40	95	12
6. Appointment of teachers	45	89	60	21	18
7. Suspension of teachers	41	104	53	16	16
8. Dismissal of teachers	48	102	61	15	7
9. Inspection and direction of teachers' work	.....	3	8	218	4
10. Calling and conducting teachers' meetings	.....	2	2	224	5
11. Promotion of pupils	4	16	19	187	7

The popular character of the superintendency movement.—It should be noted that supervision by superintendents of schools has been on trial in Massachusetts for sixty years; that it has developed steadily through these years, until now it applies to all the schools of the State except 4 per cent, and to all the school children except 3 per cent; that this growth has been wholly a voluntary one, the State authorizing but not requiring it; that it was the value of the movement to the larger towns and cities that led the State to encourage it in the small towns by paying half the superintendent's salary; and that the action of the State in making such supervision an integral part of the school system everywhere after July 1, 1902, is simply the incorporation into law of a conviction previously reached almost universally by the people that the number, variety, and magnitude of the public school interests demand a closer, more constant, and more intelligent supervision than school committees, however ably constituted, can be expected to give. Indeed, the more highly people are qualified to serve on school committees, the greater their sense of the importance of such service, but the less the time they can usually give to it; hence the greater their need of the superintendent, and the quicker their recognition of this need. And so they readily accept the principle that the school committee should limit itself to what may be called legislative functions, but assign executive functions to the superintendent.

Qualifications of the superintendent.—The mere fact of employing a superintendent does not in itself insure a wise administration of the schools. It is of the utmost consequence that there should be employed a competent superintendent. With inadequate qualifications he can not hope to gain the confidence of the teachers, the committee, and the public, and at the same time serve the schools courageously and well. It comes clearly within the jurisdiction of the State to set a minimum standard of qualifications for superintendents, should it deem it expedient to do so. In the case of district superintendents, half of whose salary is paid by the State, the State is especially concerned that its money should be judiciously expended. It may become its duty in the not distant future to provide, without otherwise impairing a district's freedom of choice, that the candidates from whom the superintendent is to be chosen shall be approved as properly qualified in scholarship, character, experience, and wisdom to discharge the high and diversified duties of the office. As a first step, let certificates of qualification be issued by the State to such persons as are able to show their fitness to serve as district superintendents. Let the plan begin on a voluntary basis, leaving candidates and districts free to use it or not. Let it stand or fall on its merits, after the customary Massachusetts way. If it stands there will be time enough for the consideration of such requirements as developing conditions suggest. It should not be overlooked that the voluntary basis favors the setting of higher standards of superintendency qualifications than the compulsory—an important compensation for certain disadvantages that pertain to any plan that invites rather than demands.

Supervision by superintendents as related to supervision by school committees.—Notwithstanding the occasional failures of superintendents to meet the reasonable expectations of school committees and the public it continues to be an impressive fact—nearly the entire State has voluntarily borne witness to it—that a capable superintendent is a power for good with the schools. The secretary in this connection deems it important to say again what he said a year ago, that "stronger committees, as a rule, are found; they more willingly render unpaid service; better teachers are nominated and employed; better methods prevail; better equipment is secured; a stronger uplifting force is felt throughout the system—where the good superintendent is found and trusted. In all this there is not the slightest reflection upon those men and women who, in places without superintendents, have nevertheless better served the schools than an inferior superintendent could possibly have done. Indeed, it is better, in the argument for expert supervision, to dismiss at once all comparisons of able committees with poor superintendents or of poor committees with able superintendents. Each of these conjunctions of superiority with inferiority is abnormal and undesirable. The right comparison to make is that between good men and women, of general intelligence and ability, who can not be expected as members of school committees to give a large part of their strength and thought and time to the schools, and good men and women, of general intelligence and ability, who have specially trained themselves by study and experience to deal with school questions, particularly with those of an educational character, and who give all their time to this difficult and important work. Ideal supervision in Massachusetts now requires that each of the foregoing kinds shall be supplemented by the other, and that the people everywhere shall press for the highest attainable service on both sides, and press all the harder for it wherever incompetency has brought either kind into disrepute. Shall a school cease to exist because a teacher has failed therein, or a school committee because its members are a discredit to the town, or a superintendency because its incumbent does not adequately fill it? If good teachers, good committee members, and good superintendents are worth having—and that is the verdict of 95 per cent of our people—by all means stand by the permanency and universality of the offices and fight for better holders thereof."

Extent of supervision by superintendents.—After July 1, 1902, all towns and cities are required by law to have superintendents of schools, towns whose valuation is less than $2,500,000 each to form unions for the purpose. The status of the towns relative to such supervision December 31, 1901, was as follows:

Number of towns and cities employing superintendents independently	105
Number of towns in a union superintendency	2
Number of unaided towns in district superintendencies	7
Number of aided towns in district superintendencies	197
Number of towns eligible to aid, but without superintendents	36
Number of towns ineligible to aid and without superintendents	6
Number of towns with superintendents, 311; without, 42: total	353
Percentage of all the schools under superintendents	93
Percentage of all the pupils under superintendents	97

Ineligible towns without superintendents.—The number of towns without superintendents and ineligible to State assistance in employing them is 6. These towns are Amesbury, Danvers, Ipswich, Leicester, Lancaster, and Nantucket. The movement of towns of this class for the past seven years toward the superintendency plan is shown in the following statement:

Year.	Number of ineligible towns without superintendents.	Population.	Valuation.	Number of schools.	Number of different pupils.
1895	15	73,196	$57,144,046	277	12,110
1896	12	69,407	48,830,708	244	10,408
1897	11	61,805	48,072,046	281	11,049
1898	7	35,798	25,256,304	142	6,140
1899	5	28,083	19,621,421	103	4,789
1900	6	31,322	22,435,786	119	5,115
1901	6	31,573	22,854,577	121	5,068

Eligible towns without superintendents.—Towns whose valuation is less than $2,500,000 each are eligible to State assistance in paying their superintendents. The movement of these towns toward the superintendency plan during the past seven years is brought out in the following statement:

Year.	Number of eligible towns without superintendents.	Population.	Valuation.	Number of schools.	Number of different pupils.
1895	85	81,861	$48,404,852	501	14 665
1896	82	85,918	48,000,908	582	16,096
1897	79	85,270	45,813,981	538	16,159
1898	80	86,529	47,032,935	572	16,542
1899	78	81,524	45,325,754	544	15,045
1900	62	64,521	33,490,570	431	12,108
1901	36	31,249	19,892,208	220	7,130

Classification of superintendents.—The superintendents of Massachusetts may be classified as follows:

1. Superintendents who give full time to single cities or towns.
2. Superintendents who give full time to groups of two or more towns not aided by the State.
3. Superintendents who give full time to groups of towns aided by the State.
4. Superintendents who give part time to single towns
5. High-school principals who serve also as superintendents.
6. Members of school committees returned as superintendents.

The following statement summarizes the towns, superintendents, and salaries of each of these classes or groups:

Groups.	Number of towns.	Number of superintendents.	Salaries.	Average salary.
Group 1	69	77	$179,110	$2,326
Group 2	13	6	12,360	2,060
Group 3	204	67	103,940	1,551
Group 4	2	2	1,100	550
Group 5	20	20	34,000	1,700
Group 6	3	3	300	100
Total	311	175	$330,750	1,890

The salaries of superintendents, arranged by magnitudes, appear as follows:

Number with a salary of $6,000	1
Number with a salary of $4,000	3
Number with salaries from $3,000 to $4,000	13
Number with salaries from $2,000 to $3,000	42
Number with salaries from $1,500 to $2,000	97
Number with salaries from $1,000 to $1,500	12
Number with salaries below $1,000	7
Average salary for the State	$1,890

If we exclude from consideration the superintendents of groups 4, 5, and 6 on the ground that they are also principals of schools, or for other reasons do not give full time to their superintendencies, the average salary of the Massachusetts superintendent stands at $1,969.

SCHOOL SUPERVISION.

[From report (for 1900) of Clarence A. Brodeur, superintendent of Chicopee (Mass.) schools.]

History of supervision.—Our present educational system has been a growth. When at the outset education was seen to be vital to the life of the colony, the direction and management of schools was vested in the towns as corporations. In town meeting assembled citizens chose the schoolmaster, fixed his compensation, determined the conditions of admission to the schools, or chose officers to attend to these matters for them; frequently the selectmen were chosen to attend to these duties. Then, as now, there were people who set no adequate value on their privileges. Foreseeing future peril to the State if the education of the children was neglected, the general court of Massachusetts Bay in 1642 passed an act charging the selectmen of the various towns "to have a vigilant eye over their * * * neighbors, to see * * * that none of them suffer so much barbarism * * * as not to * * * teach * * * their children * * * to read English tongue * * *."

In 1701 we find the first legislation concerning the qualifications of teachers, when it was enacted that every grammar-school master should be approved by the minister of the town and by those of the two next adjoining towns or any two of them. In 1789 a statute was passed recognizing the duty of school visitation. It declared that "It shall be the duty of the minister or ministers of the gospel and the selectmen * * * to use their influence * * * that the youth * * * do regularly attend schools * * *, and once in every six months at least * * * visit and inspect the several schools * * * and * * * inquire into the regulations and discipline thereof and * * * proficiency of the scholars therein * * *."

By 1827 the duties of the selectmen had become so varied and exacting and the importance of the school had so increased that an act was passed creating a board of officials for every municipality, consisting of three, five, or seven persons, whose especial duty should be the care of the schools. In 1857 it was enacted that the number constituting this board should be three or some multiple thereof, one-third to be elected annually, to continue in office for three years. This is the law to-day in all municipalities where city organizations have not made necessary special charter legislation.

Meanwhile the duties of the school committee have increased apace. They are now required to attend to the following matters: To apply the interest of the State school fund; to make reports to the town and to the State; to determine the number and location of schools; to appoint janitors and truant officers; to see that the school laws are obeyed; to select and assign teachers; to prepare courses of study; to determine methods of teaching; to organize and classify the schools; to select text-books, apparatus, and supplies; to have the care of the school-houses; to inquire into the regulation and discipline of the schools and into the habits and proficiency of the scholars; to visit the schools "on some day during the first week after the opening of such schools and on some day during the two weeks preceding the close of the same, and also, without giving previous notice thereof to the instructors, once in each month;" under certain circumstances to grant labor certificates.

This increase of duties, the growth in population of the towns of the Commonwealth, and the rapid increase in the size and importance of cities have made it apparent that no school committee can do efficiently the work assigned it. To attend to the number and variety of duties required by our statutes presupposes (1) more of time than any man sufficiently intelligent to attend to such duties can be expected to give; (2) a degree of intelligence far greater than was necessary formerly; and (3) a certain technical skill, demanding natural aptitude, extensive education, and special professional training such as few public officials can be expected to possess. Furthermore, as public intelligence in school matters has increased, it has seemed anomalous that communities should tolerate a method of management entirely at variance with the systematic practices of business life. To have no settled educational policy, to have as many heads and lines of work as there are members of the school committee—these considerations have suggested the employment of a new school official, the superintendent of schools, a name borrowed from business life, an official employed originally to manage the business interests of the schools. Providence, R. I., was the first city to employ such a superintendent, and Springfield, Mass., tried the experiment a few years later. * * *

Recent educational progress has brought out clearly the thought that in assigning duties to the superintendent too much attention has been paid to the business side of school affairs, and that his far more important duty should be to educate and inspire teachers, pupils, and communities. Superintendents are now selected not so much because of great business sagacity, important though this qualification be, as because they possess the power of mastering educational problems, of conceiving practical educational measures, of leading teachers to constant self-improvement, and of setting forth fitly educational aims and methods for the enlightenment of the public.

The number of school superintendents has increased greatly in recent years owing to our "district superintendency" law, an enactment whereby small towns may unite in employing a superintendent of schools, the State repaying them theoretically one-half but practically five-sixths the expense. This law, passed in 1888, was made optional, but was so widely adopted that in ten years 95 per cent of the school children of the State were in schools supervised by superintendents.

At the present time only 33 of the 353 towns and cities of Massachusetts are without superintendents, and these towns contain less than 5 per cent of the children.

By custom and legislative enactment, school committees have been given extraordinary powers; but in passing over a part of their duties to the superintendent they have not relinquished any of their rights. The superintendent sometimes forgets this, and because those he represents are all powerful he imagines himself to be so. Such situations are fraught with danger to the schools and call for a mutual understanding of the duties, rights, and privileges of the superintendent.

The superintendent of schools should be a well-educated gentleman, a college graduate, a man quick and sound of judgment, courteous, upright, a member of some religious denomination, and a person actively interested in the best civic and social life. He should be large enough in spirit to be above petty quarrels and jealousies, fair enough to work with others even when no personal gain is to result, sympathetic enough to see matters from the point of view of teachers, pupils, and parents, and democratic enough to recognize the just claims of all with whom he has to do. He should be able to judge fairly of the educational needs of a community, he should know what he wishes to accomplish and how to bring about desired results, inclined to solve educational problems for himself, determined to grow constantly in his profession, and willing to bring to the accomplishment of his duties untiring industry and perseverance. Few superintendents will fully meet these requirements, for perfection is as rare in school officials as in other men; nevertheless the ideal must not fall far short of this description.

The superintendent's relation to the school committee.—The superintendent is the executive agent of the school committee chosen to see that their decisions are carried out and that the school machine runs smoothly and effectively; but if he is worthy of confidence, he will find his greatest opportunity in guiding by his advice the counsels of the school committee. This influence upon the school policy of a community is what makes him an important official and differentiates him from a mere clerk. He should not be officious, neither should he be afraid to give his opinion; he should not attempt to overawe his employers, but he should realize that they expect him to advocate strongly the best things. He should be given the privilege of discussion and, on all matters within the scope of his duty, his opinion should be given more than ordinary consideration. He should be given a place on most special committees, and some matters should be left to his sole control. He should keep the committee informed on all matters, realizing that the more complete this information the greater will be the power lodged in him. The school committee will usually allow a worthy superintendent to do almost anything he wishes, provided he first asks their permission.

The duties of school management may be divided into three classes. (1) Some belong naturally to the school committee—the appointment of janitors and truant officers, the establishment of school boundaries, the decision as to the number and location of schools, and the transportation of pupils. (2) Some belong of right to the superintendent—the organization and classification of schools, the promotion of pupils, the preparation of courses of study, the adoption of methods of teaching, etc. (3) Some duties belong to both superintendent and committee—

(*a*) Who shall appoint teachers? To answer this question fairly we must realize the responsibility of each party. The superintendent is responsible for results of schoolroom work; if children are taught but little, if time is wasted, if pernicious influences surround pupils, he will justly feel public displeasure; under such circumstances he ought to have no small share in the choice of his assistants. This is doubly so since in almost every community the service of nearly a quarter of the entire teaching force is either mediocre or entirely unsatisfactory, while in some cases egregiously poor teaching is tolerated because of public opinion or through pity for those concerned. On the other hand, the school committee must

elect all teachers; the public realizes this fact and for years has received its appointment favors at their hands. A failure to respond to the requests of influential patronage seekers is sure to bring down vials of wrath upon undeserving heads. Every community has its two classes of citizens—those who are anxious for the best teachers, wherever appointments may be given; and the more numerous and more strenuous people, who believe places on the teaching force, like positions on the roads, should go to local applicants. A few foundation principles may be suggested. (1) To secure a good teacher should be the first consideration; (2) if such a person can be found in the city, she should be employed; (3) in determining fitness, "influence" should play no part; (4) attendance at a normal school or graduation from college does not make one a teacher; (5) the school committeeman should realize that a faithful discharge of his duties forbids that he shall consider himself primarily a ward representative; he is a State official, charged with the duty of caring for her future citizens.

I have spoken thus at length because here is the great cause of dissatisfaction in every progressive community; we all seek to be fair and to discharge faithfully our duties, but the situation is difficult. I believe all teachers should be elected by the school committee from candidates nominated by the superintendent, and that without such nomination no candidate should be considered. The committee should prescribe rules of procedure in accordance with which the superintendent shall nominate, but once determined, the procedure should be invariable. It is our practice that whenever a vacancy occurs the superintendent shall nominate a candidate; if satisfactory, he is elected; if not, another name is submitted. The only rule for the guidance of the superintendent specifies that he shall not recommend any candidate who is not a graduate of a normal or an approved city training school, or who, lacking this, shall not have had successful experience as a teacher elsewhere.

We have not yet reached the position where applications may not be made through a member of the committee; I hope we may soon make this needed improvement, not because it will add to my own power, but because our present practice is frequently an embarrassment to a member and because some time disastrous results may follow.

(*b*) Who shall select books and supplies? I think our practice is right and conducive to good results. The committee decides how much money shall be spent for such materials; it wisely leaves the decision as to what paper, pencils, pens, etc., shall be bought to the superintendent, who buys what the teachers need. When a change of text-books is contemplated, the superintendent, after careful investigation by himself and by some of those teachers who are to use the books, asks the subcommittee on text-books to propose the change. Copies are sent to the members of the school committee for their examination; if the proposed book is satisfactory it is adopted.

The superintendent and his teachers.—The most delightful and valuable part of the duty of the superintendent lies in his relations to his teaching force. Here he deals directly with the vital forces of the school. In the schoolroom he may commend or correct the teacher, and may strengthen her hands against new and unforeseen emergencies by leading her to right views of education; in the teachers' meeting he may lead his helpers to broader views of education, to more correct methods of instruction, and to a keener interest in study; by personal conferences he may help to settle those schoolroom difficulties, so many and so real, which cause constant vexation of spirit; in the community he may smooth away many points of friction between parents and teachers which otherwise would cause constant annoyance.

The teacher should have complete confidence in the superintendent; she should be sure that, whatever may be his opinion of her work, he will ever prove him-

self fair, honest, honorable, and in the best sense her friend. If her work is unsatisfactory, she has the right to know wherein she fails. The superintendent should be willing to labor for the upbuilding of a poor teacher with all charity, but no teacher should so have lost her self-respect as to wish to continue permanently in a work which she knows is in every way unsatisfactory.

The teacher should have a voice in the settlement of all matters in which she is directly concerned. Courses of study must be made by the superintendent, but he should not forget the value of the teacher's experience; proposed changes in the requirements for any grade should be discussed with the most successful teachers of that grade. The choice of text-books must ultimately depend upon the decision of one person, but the relative merit of books should be determined by practical schoolroom tests, and no teacher's protest should fail to be duly considered. Such cooperation increases good feeling, is especially valuable in keeping teachers alert for the best methods, and stirs their minds to new intellectual activity; it also aids in prolonging the schoolroom life of a teacher. Few professions tend so inevitably to rigidity of thought, to monotony of expression, and to narrowness of view. Unless some force within or without the teacher shall continually urge her to improvement, there can be but one result. Herein lies the value of the teachers' meeting to her who will make the most of it; it gives an opportunity to investigate broadly certain aspects of school activity and to discuss results with others equally anxious to know the truth.

It is the superintendent's privilege to aid in bringing teachers and the public into more appreciative relations. There are but few difficulties between teacher and pupil which can not be settled by a thorough understanding. Teachers are apt to be autocratic, parents to be overindulgent. Frank conferences between teachers and parents will correct many false perspectives; they will convince fathers and mothers that if it is hard to keep a single child in the straight and narrow path, it is no less so to keep 40 children in such condition that effective teaching becomes possible; they will lead the teacher to become acquainted with those who are interested in children with an interest deeper and holier than their own because begotten by God himself.

The superintendent and the community.—The superintendent has another duty to perform not now fully appreciated. It is natural for us to expect people to see things as we see them and to be indignant at the conservatism and ignorance of the public; but conservatism is not wholly bad. The public realizes that as "the child repeats the history of the race," so most people learn by experience. It wisely distrusts many clever schemes and bids us prove their worth. We should respect this conservatism and seek no higher privilege than that of convincing the public. To this end, the superintendent will do well to be much with the people, to meet them socially, and to address them on every possible occasion; thus will he prove the seriousness of his thought and the faithfulness of his presentation.

GEORGE CHARLES HOLLS.

[Extracts from a memoir by Hon. Henry Barnard, first United States Commissioner of Education.]

In the history of education in the United States under the Constitution the secular element largely preponderates, and the pioneers in organization or administration have generally been connected either with the public-school system or with the higher educational and charitable institutions maintained by municipalities or States, and, in consequence, entirely independent of any church or denomination. But, on the other hand, in the ranks of religion, closely identified with particular denominations, there have been not a few to whom doctrines and dog-

mas were subordinate to the active work of education, and especially of charity, and whose influence, while to a certain extent circumscribed by the bounds of their own church, has yet extended far beyond these limits, and who are entitled to by no means the least honorable positions in the roll of honor of American educators.

Among Protestant denominations in this country the Lutheran Church has risen most rapidly to prominence, at least in the number of its adherents. It has done and is doing a great work in educating millions of our naturalized citizens and their descendants, and it has been the means of acquainting this country with much that is best in German educational thought and the organization of charity. No one man has contributed more to this end than the distinguished philanthropist who, by his powerful thought and active and untiring labor in his chosen field, has won for himself a prominent place in the history of American education and charities.

George Charles Holls was born in Darmstadt, Germany, on February 26, 1824, and belonged to an old and highly respected family. His father served with distinction in the German war of liberation against Napoleon, but the moderate fortune of the family was lost in the financial distress attendant upon the war. The father was afterwards appointed superintendent of governmental charities for the city of Darmstadt and province of Starkenburg, and thus the earliest impressions of the son were associated with the dispensation of charity. The father died in 1830, and the task of educating his three children devolved upon his widow, a most remarkable woman, to whose loving influence and energy alone Dr. Holls was wont to ascribe his further success. He was educated in the excellent schools of his native city. The practical bent of his mind led him to seek a scientific rather than a classical education, with a view ultimately of teaching in the Realschule, or scientific school, at Darmstadt.

To this end, and with the further object of perfecting himself in French, he entered the École Polytechnique, at Strasburg, in 1841; but it was here that he felt what we should call a religious awakening, and a strong desire to contribute his mite to the alleviation of human suffering. He left the school, against the counsel of friends, and volunteered as an assistant to Inspector Becker, the head of the "Neuhof" Institution, a well-known house of refuge about 6 miles south of Strasburg. Here he remained more than three years, and was so successful that at the age of 20 he became first assistant to the inspector, and often, for long periods of time, had entire charge of the institution. Charles Henry Zeller, the celebrated educator and pupil of Pestalozzi, heard of the young man, and at his invitation Holls spent several months at Zeller's great institution at Beuggen, studying the history and theory of education under that great teacher. Meanwhile the experiment of the "Rauhe Haus," near Hamburg, had been going on for ten years and was watched with intense interest by young Holls. He was powerfully attracted by the plan of a brotherhood of Christian workers, and after considerable correspondence, in 1846 he decided to join, and was thus brought into contact with one of the most remarkable men of the age, and one who was to exert a determining influence upon his whole future life, Johann Heinrich Wichern,[a] who has often been called the Howard of Germany, but who was even more. In 1833 he had established that most celebrated of German houses of refuge, the Rauhe Haus, near Hamburg, and a few years later he introduced into it what has since become famous as the "family system." This consisted in dividing the inmates into so-called "families" of from twelve to twenty in num-

[a] For memoir and portrait of Dr. Wichern and description of the Rough House, with ground plan of the institution, see Barnard's Journal of Education, Vol. III, pp. 5-20, 603-648.

ber, each in a separate building, and under the care of one or more "brothers," and the latter constituted the "Brotherhood of the Rauhe Haus." In this way the influence of the teacher or educator was brought as closely to the child as possible, and the latter was taught to consider the institution, not as barracks or a house of detention, but as a congregation of families of unfortunate children bound together by natural affection and under one common head. The "brothers" were young men of approved habits and ability, who, without taking any vow or making any pledge to that effect, had freely devoted themselves to the relief of the unfortunate, and who, in their position as "brothers," served an apprenticeship, as it were, fitting themselves to take charge later on of independent institutions. Thus the Rauhe Haus was not only a house of refuge for destitute children, but also a training school for charity workers.

Holls entered into the spirit of the Rauhe Haus with the enthusiasm of youth and religious conviction, and when, during the great famine of 1849, the Prussian Government applied to Wichern for "brothers" to take charge of the temporary governmental charities established to relieve the terrible distress in the province of Upper Silesia, Holls, though only 24 years of age, was selected as the chief of those sent. He established 4 orphanages, which contained, before the winter was over, upward of 4,000 children, and he was indefatigable in his efforts to relieve what was probably the most disastrous famine of this century upon the Continent. At the same time he was actively preaching, and he learned the Polish language in order to be able to communicate more readily with the objects of charity, most of whom understood no German. His services called forth the highest encomiums from the ministry of public worship and the governor-general of Silesia, but on account of failing health he was obliged to resign in 1850. He returned to Darmstadt and took up the scientific course in the highest classes of the Realschule at the point where he had abandoned it in Strasburg.

A sudden impulse came to him in 1851 to emigrate to America, whither a younger brother had preceded him, and being convinced that he would find in the New World a larger field for his energies, he came to this country in June of that year. He traveled via Liverpool, where he closely inspected the harbor mission, then in successful operation there, and this gave him the first ideas of the emigrant mission, of which he afterwards became so active a promoter in New York. He settled in Pomeroy, Ohio, and engaged at once both in learning the English language and in teaching German and French at the academy established there. In the following year he returned to Germany and was married to Miss Louisa Burx at Darmstadt. The newly married couple settled at Pomeroy and remained there until 1855, when that eminent Lutheran philanthropist, Rev. William A. Passavant, having heard of Mr. Holls, extended to him a call to organize a large orphan asylum which was to be established at Zelienople, Butler County, Pa. It was the first Lutheran orphan asylum in this country, and the intention of the founders was to introduce, if possible, the family system and the idea of home into such an institution in this country. Holls accepted the call and remained at the head of the institution for eleven years.

At this time the question of juvenile reform and the methods best adapted for the successful administration of reformatories and houses of refuge occupied the public mind in this country to a considerable extent. The success of the family system and of the Brotherhood of the Rauhe Haus led many to hope that the same results would follow from their introduction here, but the circumstances were different, and Holls saw from the start that unless certain fundamental difficulties could be overcome any attempt to reproduce the German experiment on American soil would be a failure. In a letter which was published in the American Journal of Education for March, 1858, Volume IV, page 824, he discussed the

question at some length. Theoretically he expressed a strong preference for the family over the congregated system, saying:

I am, in theory, decidedly in favor of the family system, being convinced that it is the system by which houses of refuge and all smaller institutions of a preventive, correctional, and reformatory character ought, if possible, to be managed. The natural ground for the development of youthful life is in the family. If we were able to trace back each case of degradation and crime to its original cause, we would find it to be, in almost all cases, the want of that kind, genial, winning influence and discipline which parental government alone affords. All the children that fill our reformatory institutions have been more or less destitute of a family life, family relations, and family discipline as it ought to be according to the divine law. Our institutions, therefore, ought to restore to these poor children, as far as it can be done, that of which they have been deprived, or at least that which they never enjoyed—a home, a family, with all its endearments.

But he well understood the peculiar difficulties here. He observed:

There are elements of character in the vicious and unfortunate youth of this country which are different from those found in Germany. That spirit of independence which is growing up with the one, which exerts such a powerful influence over his character, and which, when wrongfully applied, leads him not only to defy the laws and regulations of society, but also to repel all efforts made by others to correct him, is at least to a considerable degree unknown to the other, who is sooner taught to submit. It would, therefore, require greater efforts to exercise that influence over the youth in this country which should lead him to a truly religious reformation; but, believing in the almighty power of the Word of God, the happy effects produced by a kind, just, and firm treatment, by continual personal intercourse with these children on the part of the house father, the elder brother or sister, I believe that these efforts might be crowned with equal success here as elsewhere. But the most important difficulty that presents itself to my mind in introducing the family, as existing in the Rauhe Haus, into this country is the great want of competent persons to take charge of these families. * * * Without these the system must necessarily prove a failure. Classes of 50 or more children are no families. If we intend to produce the greatest amount of good to our children individually by the family system, these families must be small—say from 12 to 15 each. Are suitable persons obtainable here, and if so, how? Can it be done without paying high salaries? * * * We must waive the idea of enlisting persons into this service who would do it for the sake of a temporary employment or in order to make a living.

The difficulty of finding proper men as brothers or helpers proved insurmountable at Zelienople. Holls even made the experiment of sending for six young men from the Rauhe Haus to form the nucleus of a new brotherhood, but not one of them proved competent or willing to continue the work here under the same conditions as in Germany.

The idea of a true home for the unfortunate, on the other hand, was established by Dr. Holls in this institution and in one of which he subsequently was the head, near New York, perhaps more successfully than has ever been done before. At his suggestion a rule was adopted permitting discharged inmates of the institution to return at any time in after life, if unfortunate, ill, or out of work. This gave to every child the idea of a permanent home, and it was reenforced by the home-like character of the discipline and house government.

In 1863 Dr. Passavant, in connection with the late Peter Moller, of New York City, established the Wartburg Orphan Farm School near Mount Vernon, N. Y., and Dr. Holls, who had meanwhile entered the Lutheran ministry and risen to a position of high honor and commanding influence in the church, was called to organize the new institution. This he did, having succeeded in finding assistants whom he imbued with his own spirit and principles, and thus the Wartburg became the best example of his practical work of charity. It was in the true sense of the word a home for the friendless and destitute, on the idea that small institutions of not more than from 75 to 85 inmates, and imbued with the family spirit, are far more important and "successful" in the true sense of the word in the general

work of charity than large institutions with perhaps hundreds of children under one general drill. Great stress was laid upon the cultivation of a taste for music and for innocent games and amusements on the part of the children. Dr. Holls was himself a thorough master of vocal and choral music, and never neglected an opportunity of impressing its importance as an educational agency upon his assistants. In the judgment of the best authorities upon the subject, both the farm school at Zelienople and the Wartburg near Mount Vernon were model institutions.

Thoughtful men came from afar to study the working of these charities, and the writer does not hesitate to say that in the days of Dr. Holls's administration the Wartburg was the most admirable and perfect institution of its kind of which he has ever known.

Dr. Holls came to this country in advance of the great tide of German immigration which for the last quarter of a century has had such a determining influence upon our national characteristics. He foresaw the result of so great an influx of foreigners into this country, and as early as 1858 raised his voice in favor of the speedy Americanization of immigrants by education as the best and only possible remedy for the manifold evils which would otherwise ensue. No adopted citizen has loved this country more, and few have become so thoroughly imbued with the spirit of its institutions and its peculiar civilization. In impressing his views upon his countrymen he was, however, far in advance of German-American popular sentiment, and he often suffered under the insinuation of having too little pride in the land of his birth and no regard for the interests and language of his own people. This charge was, of course, absurd. For a person of his very strong American sentiment, Dr. Holls was most active in seeking to impress the good characteristics of German thought and German civilization upon the social, and especially upon the religious, life of this country. In an address before German-American teachers, speaking of parochial schools in Columbus in 1858, he said:

We hear much of the so-called mission of the Germans in America. In my opinion the first mission of the Germans in this country is to become Americans, and by that I mean that it is their duty, as well as their privilege, to enter deeply, heartily, and with all the fervor and steadfastness of Teutonic manhood into the current of American religious, political, and social life. There is no room in this country for a German nation besides the American nation, and, if there were, neither this country nor the Germans would be the gainers by the establishment of one. It is the greatest possible mistake, and one which I regret to say is often made in the fatherland, to think that by the emigration of so many of her sons Germany is weakened and vast numbers are lost to German thought and feeling. That which is best in German thought and feeling is, on the contrary, rejuvenated and strengthened and receives a new lease of life in a wider and grander sphere by being absorbed in and becoming part of the thought and feeling of this nation, which is the people of the future as certainly as European nations may be called the people of the past I would even go further and maintain that the only ground upon which the establishment and spread of German churches, German schools, and German periodicals in this country can be justified is that they accelerate, instead of retarding, the process of absorption, which is as useful as it is inevitable, whatever may be said to the contrary.

He then proceeded to prove the necessity of this absorption and the hopelessness of all ideas of a separate permanent German community in this country by showing how every nation, in order to retain its national characteristics, requires the exclusive possession of a country. He claimed that only by constant reenforcement from abroad, by further immigration, could the German language be maintained even for daily intercourse among Germans themselves, because all experience showed that the second generation knew little or nothing of their fathers' language, while the third was thoroughly American. We regret exceedingly that no complete report of this able address has been published, in which

the soundness of the arguments advanced is no less remarkable than the foresight displayed for the problems which then were only in the future, but which are now present and of vital importance.

Dr. Holls strongly opposed the custom, which even now exists in many German parochial schools in this country, of teaching European and especially German history more thoroughly than the history of the United States and of using schoolbooks published in Germany and imbued with the monarchical spirit of that country. Of the American public-school system he was a warm friend and unflinching advocate, in spite of much narrow-minded opposition within the boundaries of his own church. At a meeting of the Lutheran Synod, to which he belonged, held in Brooklyn in 1877, a committee representing the fanatical sectarian view presented a report denouncing public schools as "pagan" and speaking of them in terms no less harsh than those employed by Jesuits. This called forth determined denunciation and opposition from Dr. Holls, who took the bold ground that however beneficial parochial schools might be in many localities, and especially in view of the necessity of hastening the transformation of Germans into Americans, the public-school system, as such, was more important for the welfare of this country and for the welfare of all the churches themselves than all parochial schools could ever be. The narrow and extreme views at the time prevailed, but the agitation against the public schools has greatly waned since that time and may almost be said to be extinct.

Dr. Holls was equally in advance of his time, so far as German-Americans are concerned, in his opposition to the teaching of the German language in the public schools. His reasoning was the same as that advanced in favor of the rapid absorption of the immigrants into the body politic. But at the same time he urged all Germans to continue the use of their native tongue at home, so as to give the second generation the enormous advantage of the perfect command of two languages. His own son was thus taught German before he learned English; but the German language was used to convey the lessons of United States history and of the principles of this Government into the child's mind, thus carefully distinguishing between useless foreign prejudices and the acquirement of a foreign language of incalculable practical value.

In all his endeavors in this direction Dr. Holls was prompted and greatly assisted by his wife. Herself a woman of unusual intellectual power, Mrs. Holls clearly saw the duties of educated German-Americans, especially of such as occupied conspicuous positions in the church, and the charm of her conversation was such that her influence was felt by a very wide circle of acquaintance, and her example was of the highest value.

Upon his removal to New York, Dr. Holls's field of labor was of course greatly enlarged. He was a constant contributor to the religious journals of his church at home and abroad, and for some years occupied the position of secretary for foreign correspondence of the American Christian Commission. As such he was in constant communication with the leaders of charity work in England, France, Germany, and Scandinavia, and his influence was largely instrumental in assisting the late Dr. E. C. Wines in organizing the international prison congresses. Together with Dr. Wines, Horatio Seymour, Francis Lieber, and Louis D. Pillsbury, he was active in the work of prison reform in the State of New York, and the only political work of his later years consisted in his efforts to secure the passage of the constitutional amendment which, by abolishing elective superintendents of State prisons, wrought such a beneficial change in prison management. He was a regular contributor to Barnard's American Journal of Education, and, together with the late Dr. Linus P. Brockett, translated several German educational classics, notably Raumer's Geschichte der Pädagogik, for that periodical.

He steadily emphasized the sociological features of religious activity, and the

results of his labors in this direction may be seen throughout the country in numerous hospitals, orphanages, homes for the aged, and asylums for various classes of unfortunates, established largely through his influence and the force of his example. In his church he occupied various positions of dignity and influence, and his activity was largely instrumental in establishing the emigrant mission in New York, which, in its various branches, is now one of the glories of Lutheranism in America. In 1883 he had a stroke of apoplexy, and after that time his health failed rapidly. The trustees of the institution urged him to postpone his resignation as long as the physician held out any hopes of convalescence, but in August, 1885, the case was seen to be hopeless, and, as it was aggravated by an equally serious and painful illness of his wife, he resigned and moved to Mount Vernon, to the house of his only son, Frederick William Holls, esq., of the New York bar, where everything that filial piety could do for his comfort and medical skill and nursing for his relief was done. He lingered for more than a year, but the end came on August 12, 1886.

THE BROTHERS OF THE CHRISTIAN SCHOOLS IN THE UNITED STATES.[a]

It is to * * * Baltimore, the Monumental City, that the credit belongs of having been the first to secure the establishment of the Christian Brothers in the United States.

Among the steps taken by Archbishop Eccleston to promote Catholic education was that of inviting the Brothers of the Christian Schools to open an institution in his archiepiscopal city; it had already been decided to build an academy for young men on the site of Baltimore's first church, Archbishop Carroll's procathedral. The corner stone was laid in 1842, and the academy was named Calvert Hall, after Leonard Calvert, the first governor of Maryland and son of Sir George Calvert, Lord Baltimore.

The arrival of the Brothers is thus recorded in Shea's History:

On the 13th of November, 1846, Archbishop Eccleston announced to his flock that the Brothers of the Christian Schools had opened a school in Calvert Hall, Brother Leopold being director. A novitiate was also established for any pious persons who wished to devote their lives to Christian education under the rule of the Blessed de La Salle.

Calvert Hall College of to-day is a magnificent granite structure opposite the Baltimore Cathedral; it was erected in 1890 to meet the constantly growing demands of higher education. * * *

New York was the second city in the United States to secure schools of the Brothers. Previous to his death, in 1842, Right Rev. John Dubois, Bishop of New York, had taken means to obtain Brothers from France, and his successor, the Most Reverend Archbishop Hughes, spared no efforts in the same direction; but the difficulties of communicating with Europe at that time and other unlooked-for obstacles delayed their coming for some years. Finally the Brothers arrived, and the following from Shea's History tells of the beginning of their work in New York:

In 1848 Providence, by indirect means, endowed the diocese of New York with the sons of the Blessed de La Salle, the Brothers of the Christian Schools. During the spring of 1848 a colony of the Brothers took up their residence on East Canal street (No. 16, near Broadway), and they soon had English-speaking novices. It was a feeble beginning, but with the blessing of God it prospered. The school of St. Vincent de Paul proved their ability as teachers and their judgment in adapting their course to the exigencies of the country.

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[a] Extracts from an article in the Catholic World, September, 1901.

In addition to St. Vincent's School, the Brothers conducted an academy for boarding students; both institutions progressed very satisfactorily under the management of Brother Stylian, the director. In 1853 the increased number of boarding students necessitated removal to more spacious quarters at Manhattanville, where, under the title of "Academy of the Holy Infancy," the work continued to flourish under the direction of Brother John Chrysostom. In 1855 Brother Stylian was appointed to preside over the new academy, which he did with remarkable success until 1861, when Brother Patrick assumed charge as director.

On the 2d of April, 1863, the name of the institution was changed to "Manhattan College," as it had been incorporated by the regents of the University of the State of New York. The large increase in the number of students and the higher standard of scholarship required by the faculty to meet the wishes of patrons made this important step advisable. * * *

How well Manhattan College has fulfilled its destiny is eloquently attested by the hundreds of priests, professional men, and hosts of skilled workers in all the callings of life who claim Manhattan as their alma mater.

The annual courses of lectures to the undergraduates by members of the Manhattan College Alumni Society; the late series of scientific lectures at Carnegie Lyceum, under the auspices of the alumni, by five of the most prominent inventors and scientists of the day; and lastly, the financial aid spontaneously provided by members of the alumni—all this is convincing proof of a loyalty and a generosity above all praise. * * *

The West was not to be without Brothers' schools. Hardly had the Brothers obtained a footing in New York when they were invited by Archbishop Kenrick, of St. Louis, to establish themselves in his extensive archdiocese. His request was complied with, and it is worthy of note that the Brothers arrived in St. Louis on August 25, 1849, the feast of the patron saint of the city and its cathedral.

The Brothers began their work by opening the cathedral school in the early part of September, only a few days after their arrival. Brother Gelisaire was the director in charge. In the following year the Brothers opened a boarding school, and they were invited to take charge of schools in other parishes of St. Louis.

The progress which the Brothers had made in three years after their arrival in the city of St. Louis is told in the following extract from Shea's history:

> The Brothers of the Christian Schools were the next accession to the diocese of St. Louis. By 1852 they had a boarding school on Sixteenth street near Market and directed the parish schools for boys at the cathedral, St. Francis Xavier's, St. Vincent de Paul's, and St. Patrick's churches. They had even been encouraged to open a novitiate on Eighth street to receive applicants for admission to the order. * * *

Among the interesting phases of the spread of their work from St. Louis to distant points is the account given by Brothers still alive of their experience during long weeks of travel in caravans from Kansas City to Santa Fe, N. Mex., for the purpose of opening an institution. The excitement caused by pursuing and attacking Indians has not been forgotten by the Brothers. * * *

The Pacific coast had no Brothers until August, 1868, when eight of them arrived as a result of the persevering efforts of the Most Rev. Joseph S. Alemany, Archbishop of San Francisco, [and] * * * took charge of St. Mary's College in San Francisco. Owing to the injurious winds and fogs beyond Bernal Heights during the summer, the college was transferred to Oakland in 1870. The success of the Brothers in the college, as well as in their other institutions on the Pacific coast, has been all that the Most Rev. Joseph Sadoc Alemany and his distinguished successor, the Most Rev. Patrick William Riordan, could have hoped for. * * *

Brother Philippe was superior-general of the order at the time the Brothers first arrived in the United States. Since his time Brothers Jean-Olympe, Irlide,

Joseph, and Gabriel-Marie have governed the society, the last-mentioned general having been elected at the general chapter, 1897. Brother Anselme, assistant general, was in charge of the Brothers' schools in Canada and the United States for some years after 1846, and Brothers Aidan and Facile were successively provincials (visitors), with residence in Montreal, Canada.

In the course of years each one of the cities Baltimore, New York, St. Louis, and San Francisco became a head center of one of the four provinces or districts into which the United States are divided.

About the year 1861, Brother Facile having been elected assistant general, the New York province was organized, and was successively governed by Brothers Ambrose, Patrick, Paulian, Justin, Quintinian, and lastly by Brother D. Joseph, who was appointed to this responsible position in 1898. The New York province includes all the institutions of the Brothers in the archdioceses of Boston and New York and in the dioceses of Albany, Brooklyn, Buffalo, Cleveland, Detroit, Manchester, Portland, Providence, Springfield, and Syracuse. The Brothers' schools in the archdiocese of Halifax, Nova Scotia, are likewise affiliated with those of the New York province.

The province of San Francisco was begun in 1868, and has been successively governed by Brothers Justin, Bettelin, and the present visitor, Brother Theodorus, with headquarters at St. Mary's College, Oakland, Cal. The establishments belonging to this district are in the archdioceses of San Francisco and Oregon City, and in the dioceses of Los Angeles, Nesqually, and Sacramento.

St. Louis was formed into a province in 1870, and was successively under the direction of Brothers Edward, Romuald, Lothaire, Paulian, and its present visitor, Brother Gerardus. It includes the schools of the Brothers in the archdioceses of Chicago, St. Louis, St. Paul, and Santa Fe, and in the dioceses of Kansas City, Mo., Nashville, and St. Joseph.

The province of Baltimore was formed in 1878, and has been successively governed by Brothers Christian, Reticius, Quintinian, Romuald, and the present acting visitor, Brother Austin.

The Brothers have schools in the archdioceses of Baltimore and Philadelphia, and in the dioceses of Newark, Richmond, and Scranton.

In each province there is special provision for the religious formation, literary and scientific instruction, and pedagogic training of new members. Each of these establishments includes a scholasticate, a novitiate, a preparatory institute for young candidates, and a department for aged and infirm Brothers. There is a director, with the requisite number of instructors, for each of these distinct communities. For these houses of formation and training there is a provincial visitor to whom these institutions are responsible. Brothers Armin-Victor, Reticius, and Edward of Mary successively held this position until 1893, when Brother Imier was delegated by the general to attend to the important interests of these institutions. These normal colleges and institutes are at Amawalk, N. Y.; Ammendale, Md.; Glencoe, Mo., and Martinez, Cal. There are more than 250 young men in these establishments who are receiving instruction and training for the duties of the religious and Christian educator.

In 1873 Brother Patrick was elected assistant general, and after his death, in 1891, Brother Clementian succeeded to this important position, which he holds at the present time.

A summing of statistics shows that the normal institutes, colleges, high schools, academies, parish schools, protectories, industrial schools, and orphanages of the Brothers are distributed through 30 archdioceses and dioceses in the United States, where they have about 35,000 students under their care and instruction.

It would require volumes to record the details connected with the foundation, growth, and development of the Brothers' institutions; of the obstacles that had

to be removed and of the difficulties that had to be overcome; of the hardships of various kinds endured by the Brothers; of the results obtained and successes achieved; of the many and heroic sacrifices made by prelates, priests, and benefactors to found and maintain schools, and finally of the great good that has resulted to religion and to society during all these years.

With the exception of but three of their institutions, the Christian Brothers have not received any large benefactions to aid them in the erection or extension of buildings or for the supplying of apparatus, libraries, etc. From this it will be easy to understand that the greatest of sacrifices and efforts were required on the part of the Brothers to build up and to maintain so many institutions.

* * * Referring to the literary and scientific instruction given by the Christian Brothers, the Right Rev. Bishop Bradley, of Manchester, said:

The Brothers neglect no department of secular knowledge, for everything has been made by God, and everything, therefore, can be studied with a view to His glory. Their success as educators is evidenced by the numerous and high-grade honors and encomiums bestowed on them by the officials of the present Paris Exposition, by the officials of the Chicago World's Fair, as well as of the London Exposition of many years past, and of educational experts in all parts of the world. Their number and their rapid spread in every part of the known earth attest their ability as masters in the training and teaching of the young.

The fact that the students of the Christian Brothers' colleges have nearly always taken rank among the highest when immediately after graduation they entered ecclesiastical seminaries, schools of law, medicine, civil engineering, pedagogy, etc., is very strong evidence of the intellectual and practical element in the education given by the Christian Brothers. It may not be out of place to note that, with the probable exception of a purely ecclesiastical college for the training of candidates for the priesthood, Manhattan College enjoys the proud distinction of having given a larger number of priests to the church than any other Catholic college in the United States.

Every college of the Brothers holds a charter under the laws of the State in which it is situated, and the courses of studies lead to the bachelor's degree in arts, in science, in architecture, and in civil engineering; courses in pedagogy prepare students for teachers' State certificates; commercial diplomas are granted to those who, on examination, are found worthy of this distinction.

The following extract from a review of educational work is a strong tribute to the methods of the Christian Brothers:

The Brothers are, above all things, systematic, clear, and plain. They desire not to cram, but to expand the mind, make it thoroughly receptive, and put the pupil in possession of the fundamentals, so that in after years he can "hoe his own row" without fear or anxiety as to opposition or competition. If the boy is to become a civil engineer he is taken step by step along the difficult road and is held firmly under direction and control until he feels and knows himself to be equal to any task within the limits of his line. And so it is with a boy who desires to be an architect, a lawyer, a physician, a bookkeeper, or a business man. The groundwork for all of these professions is laid broad and deep and according to methods of instruction that are being more and more simplified every year. To the Brothers, whose sole occupation and care is the education of the young, every day's lesson brings its special experience. These experiences they note and out of them develop new and simpler plans of impressing and strengthening the youthful mind.

The most abstruse studies and problems are by their easier methods made so plain that learning is no longer a task, but a pleasure. It is this adaptation, this readiness to overcome difficulties, this ability to make smooth roads to educational progress, that have enabled the Christian Brothers to make such wonderful progress themselves, not only in Europe but in this country, where they entered upon their work in 1846.

The brothers are enthusiastic in their work and are heartily identified with their pupils in all their studies. Education is the business of their lives and monopolizes all their waking hours. They are always on kindly and intimate

direction of it, have brought and will continue to bring untold advantage to the nation itself.

These popular ideas and this democratic system, although of comparatively recent origin, have given rise to distinguishing educational tendencies which have become well ingrained in the nation. Some are desirable, and some seem otherwise. Those which are desirable far outnumber and outweigh those which are not. In the main, the undesirable ones result from overdoing things, from pinching good things until they can contain themselves no longer without crying aloud.

Some of these are so thoroughly grounded and accepted that they need no more than be named. Others of more recent development may well have a few words of comment.

It is the plan of the nation to provide the opportunities of free education for every person living under its flag.

It is the purpose, now well under headway, to provide facilities for the higher learning, college courses, and university research, free of cost to every person who is qualified for them and who will pursue them. The people have already built a road from every town and every farm up to a free university, or they will do so. There are great and influential sections of the country where this tendency is not yet recognized and hardly suspected, but it is the spirit of our democracy, and it is "going through."

It is very generally believed that down to the present generation there has been an unfair and unwise discrimination in favor of men and against women in educational policies. At first this extended to all the schools. In time it was removed from the elementary schools; it is now disappearing from the advanced schools. Where it is not disappearing it is being minimized by devices. It is being established that what we have called the culture studies are not all that are desirable for women, and that the best results are attained from admitting men and women on equal terms and together to all that the schools have to give.

The demand that the teacher shall be free from bias and protected from influence has had new popular support in recent years. Skepticism runs among the people as to the judicial freedom of the teaching upon controverted questions in institutions sustained by great fortunes accumulated by men who are likely to have acquired a very natural bias and are known to be possessed of very forceful qualities. Generally this skepticism is without occasion, but I do not regret it. Men who are liberal with their purses are generous in their feelings. The institutions are quite able to take care of themselves. It is a wholesome feeling, inborn in our democracy; the discussion of it is educating the masses, establishing freedom on a firmer basis in the universities, and helping to extend it to the secondary and even to the elementary schools. And the freedom of the teacher is exacting better preparation for teaching and bringing added strength to teaching.

There has been in recent years a steadily enlarging demand for better preparation for teaching. It has been both without and within the teaching body. Speaking very generally, the teachers of the land are struggling and sacrificing for their own upbuilding. They leave off teaching for a year or two, they attend summer sessions, they go to conventions, and they read and study with a conscientiousness which is inspiring. The public feeling runs strongly in favor of more complete preparation for beginners. We are moving up to the time when at least the training of a college or of a good normal school will be exacted of practically all teachers. If we advance in the next two decades as far as we have in the last two we shall reach it in that time. The schools are becoming professionalized.

We can scarcely have failed to feel a closer unity of purpose and organization in the educational systems in recent years. The college is less isolated. The secondary school is less isolated. So it is with all the others. The accrediting

system which recognizes the work of the lower schools brings all more closely together. It has its disadvantages, but not so many as an exclusive examination system. It does not break down; it builds up. The denominational or other institutions on private foundations are not so far separated from the public institutions as they used to be. There is room enough for all. The great and voluntary assemblages of teachers make for the solidarity of the whole system. Relations are more cordial. Impulses are more generous. There is a wider understanding of the fact that educational meanness defeats itself, that one who gives to another does not take from his own store, but enriches himself through the giving. It is making for a healthier tone, and it is inspiring a more virile intellectual and moral activity, a more rational advance throughout the whole educational system.

The best type of the well-educated man is changing, because the better judgment of the world concerning him is changing. He is no longer a recluse. He is hearty, enjoys life in the open. He bumps against other people and finds out how much he knows that is not so. He reads and reasons and investigates, but he struggles with things and is rounded out in the struggling. He enters into life; if need be he faces opposition. He accomplishes things, and finds that the things of most account spring from the triumphs over opposition.

Educational ideals are changing. We are coming into a clearer understanding of Theodore Parker's declaration that "Work is education." We know better than our fathers did, for we have proved it, that there can be no seasoned and hardened education without work of hand as well as brain. We are seeing that all kinds of work make for learning, for steadiness, and for power. Even more, we are realizing the influence of real accomplishments upon the making of the man, no matter in what field it may be achieved.

This has changed the standards and widened the work of the schools. They are compelled to equip themselves for instruction in every conceivable direction, and they are obliged to accept students on the basis of an equivalence of work, without so much regard to the class or kind of work which has been done. Our democracy is breaking out its own educational thoroughfares. Substance, not starch; earnestness, not fortune; resourcefulness, not the number of books read in another tongue; power and endurance, not culture; performance, not the particular thing done; the ability to do things which bear upon life and the world advance, not mere acquisition, have in this last generation begun to have the weight which they deserve to have in shaping the plans and settling the policies of the schools. Some institutions which do not like it, or can not meet it, are swearing about it in classical phrase and correct form as they struggle against the inevitable end. But the greater number are happily falling in with the movement of the crowd and helping life to harden and invigorate culture, while they bring culture to the uplifting and ennobling of life.

It can not be said truly that this expansion of the scope of our educational activities to meet the increase in numbers and the advance in ideas of our cosmopolitan millions has led to superficiality. If we have been over-ambitious in places, and if some have undertaken things which they could not do, or which it was not well for them to attempt, the best educational work has gone forward with a steadily broadening reach and a constantly increasing accuracy. Profundity has lost some of its solemnity and become more common, but it is no less real and it is no less respected. Language and letters, history and philosophy, mathematics and the material and life sciences are being carried farther than the most profound ever dreamed of a century ago, and, what is better, by the million instead of the one.

The carrying of literature to the masses and the applications of science to the constructive arts have been the great educational undertaking of the last two decades. And the marked advance of this movement, supplemented by a better

realization of the fact that learning is weak indeed unless it can breast the world's life, and that it is impotent except as it makes fellowship with labor, has brought about a great change in the educational outlook of the world. For reasons obvious enough, this change was first apparent and has had its fullest expansion in this country.

Perhaps no more space can be afforded for this side of our subject, but one can hardly part with it without noting the decided and most desirable tendencies toward closer and more systematic organization and sounder administration in the educational system. Certainly there are discouragements enough, and they will never disappear altogether. Happily we are learning that the structural organization can not be strengthened and improved without vigilance, nay, even without courage and aggressiveness, and that administration of public trusts is not a pastime in which any fool may engage. The learning of this lesson is working very great advantage to the machinery of the schools. Executive functions are being centered in individual officials, and the intelligence of the country is coming to see that democratic principles are not contravened, but made potent, by the centralization of the common authority in the agent who is to execute, and that the very life of a democracy, like that of any other form of political organization, depends not only upon purposes which are sound, but quite as much upon having them carried out. While we have come to see that boards can not execute, we know very well that individuals ought not to legislate. We are differentiating legislative and executive functions in the educational system, and very decided results are already apparent.

The influences which ignore the purposes of the schools and would make plunder out of the most sacred interests of the people are surely being repelled. It may not seem so in places, but one can not have observed and reflected upon the matter long without very clearly seeing that the sentiment of the country has, in recent years, gained in appreciation of the necessities of the case, and in determination that the schools shall be free and shall be operated upon educational principles; that the teaching force shall be secure on the basis of merit, and that the unworthy influences which would degrade it shall be fought back to their lair. Surely nothing could give larger encouragement to the future of education.

Turning now to the tendencies which seem undesirable, one feels bound to say that they result from what is perhaps the American tendency to overdo things, and that they have been encouraged by the large measure of freedom accorded to the professional superintendents and teachers in the schools. They spring from zeal and conscientiousness and ambition, and are helped on by unceasing intercommunication.

Our educational system is adjustable. The State is bound to insure schools, but the perfection or the elaboration of the schools is left to the city, the township, or the district. Every American community worth considering wants the best and the most up-to-date in its schools. The educational system has become so complex that the average man of affairs, the man whose experiences have best qualified him to judge of the most imperative ends of popular education, has come to feel that he has little judgment and practically no influence in the matter. For very comfort's sake, he is too prone to leave the educational trend and the details of the schools to the professional zeal of the schoolmen, the manipulation of men of the baser sort who have little else to do, and the enthusiasm and more or less discriminating conclusions of the women's clubs.

The land is covered with educational literature of one kind or another, and conventions of teachers are of weekly, almost daily, occurrence. The written or spoken word is commonly given by men and women whose names are known and respected by the teachers of the country, who have become expert and enthusiastic in a given field, but who fail to see that what they present so entertainingly

has little practical application to the work of their hearers or readers. Frequently there is discussion for the mere intellectual exhilaration of the thing, and the effect upon the outlook of the crowd is questionable. When committees of the foremost schoolmen of the nation are constituted by the highest educational authority, their work is pointed to yet more intense discussion rather than to the solution of complexities and the giving of real aid and direction to the multitude below them. Out of all this come the endless suggestions for reenforcing the curriculum and multiplying the devices of the schools.

Let it not be said that this is a dissent from the work of the advanced schools or a criticism upon liberal thinking. It is simply a suggestion that things have their places and that even very desirable things may do quite as much harm as good when out of their place.

On my journey hither I was struck by a passage from Professor Münsterberg in which he laments the unpreparedness of the American teaching force, and says: "To produce anything equivalent to the teaching staff from whose guidance I benefited in my boyhood, no one ought to be allowed to teach in a grammar school who has not passed through a college or a good normal school; no one ought to teach in a high school who has not worked after his college course at least two years in the graduate school of a good university; no one ought to teach in a college who has not taken his doctor's degree in one of the best universities; and no one ought to teach in a graduate school who has not shown his mastery of methods by powerful scientific publications."

We all accept this as an ideal. Possibly we can not escape the surmise that there is something in the American teaching force, however, something in the way of versatility and resourcefulness, something in the way of adaptation of the teacher to the taught, which the German blood and the boyhood environment of this very distinguished and very welcome Harvard professor have stood in the way of his realizing at its full worth, but that is of little moment in this connection. I feel sure he would agree with me in this, that the teachers prepared as he would have them are not bound to transfer the methods, the discussions, and the operations of the schools in which they have been taught to the schools which they are to teach. And this is an attempt upon which a very large body of college and university teachers are, as it seems to me, fatuously bent.

Let me state the outcome of all these things, and perhaps of some other things which I have not the space to mention, in as condensed form as I can.

The educational system is undertaking too much, at least in the grades below the college.

"Research" is attempted where drill is what is needed.

"Culture" has been the slogan of recent years. It is important, but strength is still more important. It is very desirable, but it is yet more desirable that boys shall be trained to bear the part of a real man and girls the part of a real woman. If they are, the culture will come with it. The leadership of a distinguished son of Harvard, now the President of the United States, has already started a healthful reaction.

Children are being told that they should elect their studies. They can not elect. They are put to studying things they have never been prepared for and can not grasp, things which are laborious and unhealthful now, but which they would get easily and naturally enough in time if there should ever be occasion for it. It makes them artificial and conceited.

We have many of us forced our particular schemes into the work of the elementary school until we have constructed an incoherent and unsymmetrical whole. We have overlooked the fact that it makes not so much matter how much work a child does as that he shall do something exactly and completely, have the

satisfaction of accomplishing difficult tasks, and gain the enthusiasm for yet more difficult ones.

We have shaped the work of the lower schools with too much reference to the demands of the advanced schools, and we have exacted so many things for entrance to the colleges and universities that we have too often taken away the probability of such completeness of preparation, such acquisition of power, as is necessary to carry college work naturally and satisfactorily.

We have changed and multiplied the branches taught in the schools until they confuse and confound the homes upon which the great public educational system rests. Parents are unable to enter into the work of their children. It is not because the parents are so ignorant, but because the work is so changed and so complex. There is something sad about this, and there is something more than sad, even dangerous, about it. It lessens the interest of the people in the schools. If they support the schools because it is ingrained in them to do so, they can not by word and act sustain a knowledge in their children that the home and the school, the father and the mother and the teacher, are in intelligent concord, in active alliance, in a not to be questioned league, as of yore.

The management of the early schools was too harsh; it is too condescending now. The child once sat at the feet of the teacher, but now the teacher is at the feet of the child. It would be well in moderation; it is bad in excess. It would be well if it helped the child, but it gives untrue standards and false ideals. There is talk about applying the spirit of the kindergarten to boys and girls of the high-school age, or men and women grown. They do not want it. If they accept it, they are weaklings or become such.

There are some healthful signs that the child-study diversion which has been carried to such extremes has well-nigh run its length. It commenced with the infant in embryo and has come down to adolescence. It has gone into some things from which miscellaneous assemblages should be secure. It has assumed to make some investigations in mixed gatherings of youth and has talked and has printed details in public which should be resented by parents and, if necessary, prohibited by law. It has delved in the abnormal and attracted the morbid. It has made much of things arranged by nature, things about which one can think much and be very wise and very miserable, or which he can let alone and get on comfortably enough.

There has been too much adjusting to the individual peculiarities. Physicians whom you admire because they help humanity on its way do not pamper their stomachs by always wondering what may be put into them. They eat what they want and when they want it, and let their stomachs do the adjusting, and their stomachs ordinarily do it. It is better to lay out educational highways which ordinary people ought to follow, and can follow, and help the others to follow them, if they can do it by help, even though some fall by the way, than it is to lay plans for weaklings and force the larger and stronger part to square their lives by lines laid down for the weaker sort.

There is too much agitation, unceasing change, and consequent uncertainty in the operations of our American schools. There is too much individualism in laying plans and arranging courses and in methods of teaching, too burning a desire to say something new or do something novel for the sake of prominence in the teaching body. Of course it will be said that this has brought us to where we are. But we might be quite as well off if we were not exactly where we are. And, moreover, a thing that is good for a time is not good forever. Plans and processes ought to settle down in the lower schools at least. It may very well be assumed that there are not going to be many more new continents or systems of wireless telegraphy discovered to the profit of the curriculum and the teaching of the schools of elementary, secondary, and college grade. The doctrinaires ought

to seek places of meeting by themselves, where they can discuss things to their satisfaction and not keep the whole educational system stirred up all the time. We may rest assured that if they ever came to any sort of an agreement upon anything of moment, we would hear of it very soon. The experts ought to work in their laboratories until they get hold of something the world ought to know and get it in such shape that the next expert will not knock it over. It is hard upon a teacher or a child to be manipulated by so many "experts" who do not agree. There are some things about this modern school system of ours which, as it seems to me, might be very profitably cooled off with a good stream of cold water.

As much as is practicable, and perhaps more than is desirable, in view of the fact that so very much has been accomplished and that there is really so much to gratify and so little to condemn in our educational system, has been said upon this phase of our subject. Happily I can not have my way, and happily the other man can not either. The true way will come out of the compounding. That is reason enough why we should each have a way and, within reasonable limits, should stand by it.

In concluding words, my say concerning the educational system is as follows:

I would not forget that the educational system rests upon three foundations, viz: (*a*) The policy of the States as determined by their legislatures and accomplished through the taxing power; (*b*) local communities, which, through the exercise of power delegated by the State, supplement the system provided by the State to such extent as will be sustained by the intelligence, pride, and resource of the vicinage, and (*c*) private beneficence, which enriches and embellishes the legally established system and founds great institutions to give the largest inspiration to the comprehensive whole.

I would aim at an elementary school in reach of every home, a secondary school in every city, township, or incorporated village, and a university in every State, all free and without discrimination as to sex or other conditions appertaining to the individual. I would even go further than some and pursue courses which would not drive out the cultivated and the rich.

I would adopt Professor Münsterberg's platform as to the teaching force, and try to secure college or normal graduates for the elementary schools, college graduates with a year or two of graduate work for the secondary schools, university doctors for the colleges, and the real experts who have had their feet on the ground and shown sanity, productivity, and power for the universities. I would fight political, social, religious, and all other influences which are disposed to meddle with the teaching force, and I would adopt a resolution in favor of preference on the basis of merit in every place and at every time where there was half an opportunity.

I would manage children without so much reference to their weaknesses or peculiarities, recognizing these where so marked as to make it necessary, but not accentuating them in the mind of the child or in the thought of the school. I would not allow a teacher to put a hand on a child in punishment. I would not coddle; I would direct, encouraging comradeship as children grow up to it and prove worthy of it. I would make plans for normal children and, assuming that the crowd is normal, expect them to adjust themselves to the plans. I would give special help to the exceptional cases, if a little unusual help would suffice, and go on without saying much about it.

I would not attempt to put into the heads of children the accumulated history, science, philosophy, art, and patriotism of the ages. I would give a school an architectural schoolhouse and artistic grounds, and put some standard pictures on the walls and call attention to the need of caring for them, and see that they

are cared for, and let that do for art for some years of child life. I would not teach patriotism, but I would lay the foundations of citizenship in mathematics, and language, and in history, with less of the imaginative and fictitious living in it which we hear so much about. I would stir their feeling and draw out the better expression of themselves, not by laying so much stress on original work, but by having them rehearse masterpieces in literature on Friday afternoons. I am sure the patriotism of the school and of the community would be the gainer by it. I would lay foundations upon which the State might rely by training pupils in the elementary schools and students in college to respect authority and by inbreeding in them the habit of performing their duty. I would mix with them freely in the gymnasium and on the ball ground. I would yell with them in victory and carry one end of the shutter in disaster, but I would give them tasks which they could do and see that they did them exactly and completely. I would work not for quantity but for interest and for power. I would reason that if I started the child aright at first, whether he liked it or not, he would in time gain enthusiasm that would steadily increase and that he would ever after bless me for it. I would have no electing, at least below the college, but I would have plenty of drill. I would try to do the electing and endeavor to provide the resolution necessary in the premises. I would strive to train the youth so that when he got to the age when he ought to have judgment he would have it, and so that when he made his election he would have zest and power to accomplish what he undertook. I would not try to make nice characters so much as square and strong ones. Beauty in form follows, it does not precede, effectiveness in life. I would put in the way of the youth the things which would lead him to think that the constructive industries, the industrial arts, are quite as respectable and quite as promising and profitable as the professions, and I would preach and exemplify the gospel of work by brain and hand from morning to night, year in and year out.

I would lose no opportunity to assert the fact that any power to uplift and vitalize the work in any school must come from a school above; but I would insist that the schools above shall know the real conditions and come into intelligent and genuine sympathy with the schools below before presuming to direct and inspire them. I would have the way open and continuous from the primary to the university. I would trust the work of the schools below, at least until it was proved that they were unworthy, and I would not distrust all because some proved unworthy. I would lay more stress upon one's knowledge and resources when coming up for his degree than upon his acquisitions when he wants to commence to earn one. I would not allow the incapable or the indolent to clog the machinery and interfere with the rights of others, but I would soften hard-and-fast entrance requirements so as to give his rightful opportunity to one giving reasonable promise of power to do the work. I would do all I could to interlace all the schools of all grades and people of all kinds together by generosity and helpfulness, because the stability of the nation hangs upon it and because educational exclusiveness and meanness defeat themseves.

I would never forget that the educational system of America is not merely for the people. It is the people's system. They have created it. They are to administer it. Great men have founded the great privately endowed universities, and men of their kind are to administer those universities. The religious denominations have set up schools of their own and for their own ends, and they are to carry them on. The people have established the great public educational system, and the people are to direct it. All must work in accord with the common sentiment or pay the penalty of decay, for we are a cosmopolitan, but a united people. Civilizations make schools, not schools civilizations. Schools are the instruments and helps of civilizations, but civilizations come out of the Great Unknown. Our

democratic society has developed our educational forces and ideals on democratic but virile lines. There are more elements of strength than of weakness in democracy. We suffer much from mismanagement by incompetents and self-seekers, but we want no better management than the creators of institutions can give them and will sustain. Mismanagement is in defiance of the better sentiment of the people, and it is this better sentiment which will have its way. Let us help it on its way. There is a spirit in this democracy of ours which is only manifest on occasions and which we too often overlook and ignore. It has come out of a great past. It has resulted from the compounding of the greatest peoples in world history. Let us distinguish that spirit and follow its lead. Let the educational advance be in touch and in harmony with it. Let the schools bear in mind the religious and political and industrial history of the country and be content to employ simple plans and settled measures in promoting the noble and lofty mission of our democracy.

RURAL SCHOOL LIBRARIES.

[Read before the Iowa State Teachers' Association, December 28, 1899, by Henry Sabin, formerly State superintendent of public instruction.]

Emerson says that books are only to inspire. Knowledge is of secondary importance. That alone ministers to the growth of the race which, coming from the heart of one, finds lodgment and life in the heart of another. Not only would schools, colleges, and universities disintegrate and disappear without books, but everything which we call culture would vanish, and society would lapse at once into barbarism. Emerson is right. The inspiration which makes life worth living is drawn from the printed page. To place a book in the hands of a child after he has been taught to read it is an act of the greatest moment. We give him the key; we teach him to unlock the door which opens into all the activities of life. We recognize that in the fullness of his creation he ranks but little lower than the angels of God. The child who in his youth is led to open his heart to the inspiration of books anchors his life to the teachings of the great and good of all ages. It is not necessary, then, to discuss the advisability of establishing libraries in connection with rural schools. That is settled in all thinking minds.

There are certain forces at work in society which will ultimately rescue the rural school from its present isolated condition. The increased demand for better roads, for rural postal delivery, for cheaper telephone and telegraph rates, will eventuate in bringing the country school out into the full light of a brighter day. The regeneration of the rural school must keep equal pace with the regeneration of the public which sustains it. It is a mistake to attempt to study the rural school problem by itself, apart from its surroundings and environments.

The school in the country is a part of community life, more than it is in the city. We must rely upon its instructions to make farm life more attractive as well as more profitable; to add to the usefulness of the child as an aid in carrying on the affairs of the home; to make the farmer's house more attractive, and to prevent, as far as possible, the exodus of young people from the country to the city.

The rural school is in danger from the short-sighted policy of its friends. To raise the intellectual standard is only a small part of the work in hand. Better teachers, better buildings, better methods, better text-books, there is still left something even more desirable than these. The rural school must be brought into close touch with the life about it. It must be made potent as a social factor. It must have a place in every plan which looks to the betterment of country life.

The early part of the twentieth century will see the beginning of a new era in our system of farming. The present wasteful system of extensive farming has

seen its best days. In its place will come an intensive system, in which the main study will be how to get the most from every acre under cultivation. The increase of population, a large foreign demand for our farm products—in fact, a world-wide market, in which we shall have to compete with the cheap labor and the fertile soil of South America, India, and Russia—will compel us to make the most of what we now consider the waste products of the farm, the mine, and the factory.

With the advent of the small farmer will come to him and his family a sense of independence of others and of dependence upon self. With less hired labor there will be more time for study and reading and a disposition to think and act for himself.

The library must be an adjunct to all this. Books which inform and instruct must be placed where the rural population can reach them. The best methods of treating and cultivating the soil, the most effective fertilizers, the breeding and care of stock, the foods best calculated to produce fat or increase the flow of milk, forestry, horticulture, mining, landscape gardening, and other kindred subjects can not long be excluded from the curriculum of the common school.

The rural school library must be selected with certain ends in view. It must contain on its shelves not alone history, poetry, fiction, but also books which bear upon the industries in the midst of which the school is located. A library suitable for farmers' boys and girls is not the best for children whose parents work in the mines.

If nature study is to be permanently installed in its appropriate place, it must not be allowed to degenerate into meaningless talk, lest the same fate overtake it which has fallen upon the object teaching of twenty years ago. There is scarcely a trace of object teaching left to-day, and, unless we are careful, in twenty years nature study will be classified with the lost fads.

Do not misunderstand me as opposing nature study. But nature study must call for the exercise of research and study on the part of the pupils as well as the teacher. The library must furnish books to be read by the teacher and pupils in connection with these subjects which I have mentioned as of importance to the school and to the community about it. Teachers can no more instruct intelligently in nature study without preparation and instruction in methods than they can in language or numbers. The object of the lesson is not to inform, but to stimulate, and to create a desire to know more. This desire awakened by an enthusiastic teacher dies out unless the library furnishes something to nourish and strengthen it. I greatly fear that the books usually selected for the library are not of the character here indicated. They do not furnish the sustenance needed for a healthy growth of mind.

I desire not to criticise too severely. The suggestion that much greater care should be taken in selecting books, that many should be thrown out because the only claim they have is their ability to amuse and their places supplied with those of a higher grade, is all perhaps that there is time to offer in this paper. The library should be selected with a definite purpose in view. The old order of things must soon pass away, and in the new curriculum there will be use for books bearing upon every subject connected with social life in the country.

The strength of the country school should be in the library. Not in the heterogeneous mass of books bearing upon everything in general and nothing in particular, but in a collection carefully made up and chosen, having in view the greatest possible usefulness to pupils and people. Let me briefly recapitulate. The library, in order to be of the greatest use to the rural school and the community tributary to it, should contain—

First. Books which treat of agriculture or which pertain especially to the industry most prominent in that region and which furnishes the means of living

to the inhabitants. They should pertain especially to whatever is the center of interest to that people.

Second. Those which treat of animal life: the birds most pleasing as songsters and those most useful in destroying injurious insects and worms; the care of bees; the habits of ants and wasps; of domesticated animals, the care of them, and the profit in raising them. Above all things children should read books which have a humane side as regards the life which is about them.

Third. Horticultural books, which treat of fruit trees, of grafting and pruning of vineyards, of small fruits, which every family can raise with but little expense, but which add to the comfort of the table and swell the purse from which the housewife purchases the many little things needed in her family.

Fourth. Books which treat of floriculture, window gardening, and the care of lawns and shrubbery with a view of beautifying the laborer's home. The poetry of rural life is the beauty of the rose, the wild flowers on the prairie or in the woods. The æsthetic side of the child's nature will always respond to the influence of chaste, pure, beautiful surroundings.

Fifth. On the shelves should be books treating of arboriculture. The child should be interested in trees, how to plant and transplant them. Which trees are most useful for timber, for fruit, for shade, for beauty, and which are of the most rapid growth, may be useful subjects for research and discussion.

Sixth. On another shelf should be found books that are to be read in connection with mineralogy, meteorology, and geology. Elementary books along these lines at the disposal of the pupil and the teacher add to the interest of the school and success of the teacher's work.

Seventh. There should be also a miscellaneous collection suitable for reading at the fireside or in the family circle. Not every new book that is published should find lodgment in the school library. Only those should be given a place which are pure in style and elevating in sentiment. Dickens and Hawthorne, Cooper and Prescott, Tennyson and Longfellow, must ever hold the first place as choice English classics. The dictionary and reference books should never be omitted.

We make a mistake when we limit the usefulness of the library to the pupils in attendance at the school. There must be found on its shelves books for home reading and for the family circle. History and biology, travels and science, art, poetry, and fiction are all needed to enlarge the horizon of the farmer's knowledge and to make him what he is not now, "citizen of the world." The farmers' institute, the lyceum, the debating club, the mothers' club, should all be stronger and more effective because of the inspiration drawn from books in the school library. Questions which arise in parliamentary law, in civil government, in the State and the national constitutions should all be answered by reference to the best authorities.

The library should be open to the young people who have left school but still reside in the neighborhood. The power and usefulness and the happiness of the teacher will be increased if from the register she would learn their names and then take pains to make their acquaintance and enlist their sympathy in the support of the library and the school. "Anyone who is a pupil of this school can use these books" is too narrow a regulation. "Anyone is welcome to this library who is a resident of the district and will give assurance that the books will be carefully read and promptly returned" would be far better.

In a certain kindergarten room in Ohio the following sentence is posted up where everyone who enters the front door can not fail to see it: "The object of this house is to furnish a center for the social, mental, and moral life of the people; to educate the children, to encourage the parents, and to assist the workers, that life may be brighter and happier for all." Change the word "house" to "library" and you have exactly my idea of the purpose of a library, especially in rural districts.

THE YALE BICENTENNIAL CELEBRATION.

The two hundredth anniversary of the founding of the institution now known as Yale University was celebrated October 20–23, 1901, with appropriate ceremonies, exercises, and entertainments. The chief features of the programme are here given, together with extracts from the commemorative oration of Mr. Justice Brewer and from the address of President Northrop, of the University of Minnesota.

PROGRAMME.

Sunday, October 20.

I. Public worship in the Battell chapel; sermon by the Rev. Joseph Hopkins Twichell, senior fellow of the corporation. (10.30 a. m.)

II. Services in the churches of New Haven, with sermons special to the occasion. (10.30 a. m.)

III. Services in the Battell chapel; address on Yale in its Relation to Christian Theology and Missions, by Rev. George Park Fisher, professor of ecclesiastical history. (3 p. m.)

IV. Organ recital in the Battell chapel. (8 p. m.)

Monday, October 21.

I. Dedication of the gateway erected by the class of 1896 in memory of Ward Cheney and Gerard Merrick Ives, who gave their lives in the service of their country. (9.30 a. m.)

II. Address on Yale in its Relation to Law, by Thomas Thacher, of the New York bar. (10.30 a. m.)

III. Address on Yale in its Relation to Medicine, by William Henry Welch, professor of pathology in Johns Hopkins University. (11.30 a. m.)

IV. Address of welcome, by Arthur Twining Hadley, president of the University. Responses by Hon. Anthony Higgins (for the graduates); the mayor of New Haven; the governor of Connecticut; United States Senator Platt of Connecticut; James Williams, D. C. L., Fellow of Lincoln College, Oxford (for the universities of Great Britain and Ireland); Fiódor Fiódorovitch Martens, LL. D., professor in the University of St. Petersburg (for the universities of continental Europe); President Dabney, of the University of Tennessee (for the universities of the South); President Harper, of the University of Chicago (for the universities of the West); President Eliot, of Harvard (for the universities of the East). (3 p. m.)

V. Reception of delegates, guests, and representatives of the alumni by the president of the University. (5 p. m.)

VI. Torchlight procession of students and graduates (about 5,000, in characteristic costumes), starting from the campus at 9 p. m. The procession was led by the State military, and 25 bands were interspersed at intervals.

Tuesday, October 22.

I. Address by Cyrus Northrop, president of the University of Minnesota, on Yale in its Relation to the Development of the Country. (10.30 a. m.).

II. Address by Daniel Coit Gilman, president of Johns Hopkins University, on Yale in its Relation to Science and Letters. (11.30 a. m.)

III. University football game. (2 p. m.)

IV. Choral performance of Hora Novissima by the Gounod Society at the Hyperion Theater. Conductor, Horatio Parker, professor of the theory of music and composer of the oratorio. (4.30 p. m.)

V. Student dramatic performance on the campus, with singing of college songs. Scenes from the history of the college, presented under the auspices of the Yale Dramatic Association. Illumination of the campus. Singing by graduates with student chorus (600 voices), under the leadership of Samuel Simons Sanford, professor of applied music.

Wednesday, October 23.

I. Procession of guests and graduates on the college campus and the city green, headed by the President of the United States and the president of the university. (10 a. m.)

II. Commemoration exercises, Hyperion Theater: Poem by Edmund Clarence Stedman. Greek festival hymn, composed by Thomas Dwight Goodell, professor of the Greek language and literature. Address on Yale's Relation to the Public Service, by Hon. David Josiah Brewer, Justice of the United States Supreme Court. Conferring of honorary degrees. (10.30 a. m.)

III. Concert by the Boston Symphony Orchestra, Hyperion Theater. (2.30 p. m.)

IV. Dedication of Woodbridge Hall. (4 p. m.)

V. Farewell reception by the president of the university and Mrs. Hadley. (5 p. m.)

SPECIAL EXHIBITIONS.

In connection with the celebration there were several special bicentennial exhibitions, as follows:

I. Exhibition of paintings in the south gallery of the School of the Fine Arts, the centers of interest being the 110 works of John Trumbull and the collection of portraits by Prof. Samuel F. B. Morse.

II. In the Peabody Museum there were four special exhibits prepared for the celebration: A dinosaurian reptile, a skeleton of an ancestor of the dog family, a model in papier-maché of a dinoceras, and the Newton collection of meteorites.

III. In the university library was an exhibition of documents, books, and views, illustrating the early history of the college.

IV. A considerable part of the Morris Steinert collection of keyed and string musical instruments, recently given to the university, was exhibited in the foyer of the Hyperion Theater.

BICENTENNIAL PUBLICATIONS.

With the approval of the president and fellows of the university a series of volumes was prepared by a number of the professors and instructors, and issued in connection with the celebration as a partial indication of the character of the studies in which the university teachers are engaged. The series includes 25 titles.

RELATION OF YALE TO THE PUBLIC SERVICE.

[From the commemorative oration of Hon. DAVID JOSIAH BREWER.]

* * * In the general thought of education all colleges and universities are alike. As human faces have general features in common, so have educational institutions, and yet there is always something which individualizes each. "One star differeth from another star in glory." If Yale has had a generous curriculum, so have other institutions. If she has had learned and distinguished instructors, so have they. If she has had graduates who have done grand work in life, so have they.

I turn from those forces and facts in which Yale's life has been common with the lives of other educational institutions to some matters of difference—things which individualize her.

Note the declared purpose with which she began life, and the spirit in which that purpose has been carried into effect. That purpose was, as expressed in her charter, now two hundred years old, to fit young men "for public employment both in church and civil state." * * *

She was the first educational institution in the world to make the fitting for public service the expressed and dominant purpose of her educational work. In this country the two earlier colleges were Harvard, in Massachusetts, and William and Mary, in Virginia. In neither of their charters is there any recognition of public service as the purpose of their lives or training. Even if similar language be found in the charters of educational institutions across the waters prior to that time, it must be remembered that public service there meant service of the monarch. So it may fairly be claimed that Yale was the first educational institution in the world to make training for service of the public the supreme object of her life and work.

What a noble, inspiring purpose! True service of the public is not mere office seeking or office holding, for either of them may go with the poorest kind of service and with constant thought of private gain or personal ambition. It is a striving to promote the interests of the great body of the people; a seeking of the general welfare; an effort to make the lives of all sweeter, purer, nobler; it is service of the public and for the public.

All the true education is a blessing. It is an honor to any institution to be able to say, "I have educated this distinguished scientist, this wise philosopher, this learned historian, this great professor;" but it is a far higher honor for an institution in these United States of America to be able to say, "I have trained my graduates to good citizenship."

That was the expressed purpose of Yale's life, and as a dominant purpose always molds and controls one's activities it is not strange that her sons should be conspicuous for their devotion to the public welfare. This is said in no disparagement to other colleges and universities, for it is a fact redounding to the honor of all that the educated men of America have furnished most shining example of pure, unselfish devotion to the public interests. Every such institution can point to conspicuous examples among her sons—many conspicuous in the present day (thank God, there have always been in this country college men ready to recognize a true Washington, whether his first name were George or Booker), but I do make bold to say that the lives of the great body of her graduates bear witness to Yale's constant loyalty to her expressed purpose. * * *

The overshadowing political fact of the last four centuries is the evolution of the problem of government of, by, and for the people. To him who believes that the world's life is not a mere succession of accidents, but a movement of forces along the lines of an infinite purpose, it is not strange that many things were contemporaneous with and helpful to the solution of this problem. It was a day of great mental and moral upheaval, unrest, and activity. The invention of printing, the unchaining of the Bible; the spirit of chivalry, outgrowth of the Crusades and feudal life; the birth of international law, founded on moral obligations; the opening of a new continent to the civilized world—all these things gathered about and tended to the successful working of the great political problem. On the virgin soil of this new continent the most vigorous spirits of the most virile races sought homes far from the overshadowing influences of monarchical systems; and here began, at first in a feeble way but with constantly gathering strength, the inauguration into the life of the world of the thought that every man is free and every man a ruler. It was at such a time, on such a continent, and during the evolution of this great problem that Yale came into being and has lived her life. What a magnificent opportunity! How great the need of such an institution! Popular government was not fashioned in an hour or born

in a day. Its relations to society and social order were not established by a single act or accomplished by colonial charters, the Declaration of Independence or the Federal Constitution. Slowly the structure of popular government was to rise—did rise—and skillful must be its architects, patient and faithful its toilers. And to the work of educating its architects and training its toilers Yale devoted her life. Ignorance would have wrecked the movement; ambition and selfishness would have stayed its growth. In fullest sympathy with the thought which underlies the problem, Yale strove to give her students the best of education and to fill them with the spirit of public service. Is it strange that her sons have ever been faithful workers on the great structure? Is it strange that the common people heard her gladly and sent their sons to receive her training? * * *

Another significant feature of Yale's life is her relation to religion. Public employment in church was one of the avowed purposes of her creation. The first rule prescribed by the founders at their first session after the granting of the charter directed the rector to "instruct and ground them (the students) well in theoretical divinity." The first formal professorship in the institution, created nearly three-quarters of a century before the establishment of a separate theological department, was a professorship of divinity. During the first hundred years 40 per cent of her graduates entered the ministry.

The founders were Congregational ministers, robust in theology, as became a minister in those days. While they only dimly saw and faintly felt the higher truth, love the fulfilling of the law, they believed in righteousness and judgment; they knew the line and plummet. Committing the control of the new college to their own denomination, they wisely bound it to no creed, fastened it to no dogma. Doubtless, as Judge Baldwin said, "The religious liberty for which the Puritans crossed the sea was simply liberty to make their form of religion the law of a new community." Yet Yale was always broadly catholic. In the volume issued by President Clap, in 1765, concerning the history of the college and its rules of life, he says: "Persons of all denominations of Christians are allowed the advantage of an education here, and no inquiry has been made, at their admission or afterwards, about their particular sentiments in religion." From the very beginning Yale has stood with an open door toward all true religion. Early she transferred the urim and thummim on the breastplate of Aaron into the motto of her life, "Lux et veritas" and ever has she walked, guided by that motto in her training of the young for public employment in church and civil state. She anticipated Goethe's dying call for "mehr Licht;" Cardinal Newman's "Lead, kindly Light; * * * Lead thou me on;" and ever has she, ignoring its sneer, sought the answer to Pilate's immortal question, "What is Truth?"

So much for the past; that at least, as Webster said, is secure. And now for the present and future. It is the law of life, at least of that which appears in material forms, that there is growth, maturity, then decay and death. We have seen that Yale has grown. She stands to-day a marvelous institution. Is this only the ripening, to be followed by decay and death? Has she, like the great multitude of human institutions, outlived her usefulness with nothing before her but the sad processes downward to dissolution and death?

I turn again to her relations to the great work of fitting for public service, and find an answer in the need of such work for the preservation and perpetuation of popular government and her fidelity to her declared purpose in respect thereto. The conditions of life, social and political, are not as they were. We stand in a wondrous hour. It is the time of marvelous achievements, the day of magnitudes and magnificences. The great army of civilization is marching from victory to victory. Yet now, as in the days of Patrick Henry, amid the shouts of joy and triumph are notes of discord, the cry of the modern John Hooks, hoarsely bawling, "Beef!" "Beef!" "Beef!"

The structure of popular government in this Republic towers above the horizon of the world great and strong, and yet the question of its permanence is not settled. Its possibilities of good are greater than ever before, yet it lives under new conditions and faces new dangers.

> New occasions teach new duties; time makes ancient good uncouth;
> They must upward still, and onward, who would keep abreast of truth.

Consider these things which are rapidly changing all conditions of life, especially those in this country. From the beginning of time till within the last century there was no substantial improvement in the means of travel or communication. The only motive power was the wind of animal strength. And during all these unnumbered centuries the camel and horse grew no swifter, the ox no stronger. The caravan moved with the same slow pace at the beginning of the nineteenth century as when Abraham went out from his father's house to become the founder of a new race. The wind now blows no more strongly or swiftly than when Paul's vessel was driven about the Mediterranean by the tempestuous Euroclydon. The post-office and telegraph were things unknown. But with the introduction of steam and electricity, transportation, travel, and communication have wonderfully changed. Time and distance are almost annihilated, and each year is adding speed, capacity, and comfort. We talk around the globe in a minute; every morning the events of the world are spread before us in the daily press. The post-office takes the letter from our doors and speedily delivers it anywhere in the land. We travel around the world in a month. Vessels larger than the ark in which Noah floated all the undestroyed animal life of the world and carrying in their immense capacity a multitude greater than that which fought for liberty at Bunker Hill cross the Atlantic in less time than it took John Adams to go from Boston to Philadelphia to sign the Declaration of Independence. The most distant islands of the sea are brought near to our shores. The divergence, isolation, and animosity of races and people, typified by the story of the dispersion at the Tower of Babel, are yielding to the unifying influences of steam and electricity. The steam engine and the telegraph are laying the foundations of a new tower which shall pierce the blue heavens, within whose temple walls a united humanity shall worship the Infinite Ruler. The forces of life are centripetal and not centrifugal. Union and unity are the potent words. Neighbor has become a recognized term in the vocabulary of nations. Our recent war with Spain for the deliverance of Cuba, with its resulting acquisition of Porto Rico and the Philippines, was but one act in the great drama whose far distant prelude was ignorance, oppression, and hate, and whose final song shall be the angel anthem first heard by Judea's shepherds on Bethlehem's plains, and yet to rise from every human lip, earth's glad reply to heaven's prophetic message.

Add to this the other recent products of inventive skill, and the many wondrous machines of relieving the hand, and by which all work is done with unexampled exactness and rapidity, as well as on a scale of constantly increasing magnitude; add, also, the wonderful increase in our population, the thronging multitudes coming out of every people and race on the face of the earth, with different habits of thought, different notions of government, and different degrees of intelligence, and we have some of the elements which are changing the conditions of the great problem of popular government.

These various causes are operating in our midst to produce wealth, consolidation, centralization. The rapidity and multitude of mercantile transactions is seen in colossal fortunes, in gigantic undertakings, in enormous financial consolidations and corresponding organizations of labor. Local self-control is giving way before the pressure for centralized power. The town meeting is supplanted by the State legislature, while the latter in its turn is yielding to the expanding power of Congress. Political parties are largely under the management of

bosses, and the whole great forces of industry, business, and politics seem passing under the dominance of single central control.

Is this centralizing tendency antagonistic or helpful to the Republic? Is it consistent with popular government? Apparently it is antagonistic, against the republican thought of equality of right; each man a ruler and equally sharing the reponsibilities and powers of government. Forms may not be changed. Power seldom cares about forms; it seeks the substance of control. Many and insidious are the temptations which attend the efforts of power to centralize and establish itself: wealth and its offer of luxuries, sweetness of office holding, popular applause, even though manufactured and purchased. He who stands in the center has these and a thousand other strings reaching to every side of the surrounding circle.

We hear to-day many a financial and industrial leader asserting that there is no need of a college training except for the few who wish to follow a merely professional life; that the time occupied in such training is lost to him who seeks to take part in the great industries of the day; that more wisely would it be spent in learning all the machinery and mysteries of organization and business. These assertions have a deeper significance than is ordinarily credited to them. They are the outcry of power against equality; the challenge of the forces which seek to polish the material to those which aim at the elevation of the intellectual and spiritual.

If the end of life be the mere perfection of the organization, the mere building up of colossal machines for doing work and making money, then it may be that the young man should commence as soon as possible to learn all the details of organization, all the workings of the machine. But surely the purpose of life is broader, and includes the relations of the individual as well as of the organization and the machine to the larger public and to popular government.

You can not stay this movement toward consolidation and centralization. It is a natural evolution. The commercial spirit is taking advantage of the wonderful facilities given by steam and electricity. Injunction against strikers will not stop it, legislation against trusts will not. Attempting to stay the movement of its chariot wheels by injunction or statute is lunacy, compared with which Dame Partington's effort to stop the Atlantic with a mop was supreme wisdom. Appeal must be taken to the great court of public opinion, whose decrees are irresistible. In that court every man is counsel and man is judge. That court may not stay the movement, but will control it. It can make the movement, with all the wonderful things attending it, subserve the higher thought of ennobling the individual. Who shall lead and guide in that court? Not the demagogue, appealing for selfish purposes to ignorance and prejudice. In the opening hours of the French Revolution Mirabeau roused the rabble in Paris, and the roused rabble whirled social order into chaos, provoking Madame Roland's dying words, "Oh, Liberty, what crimes are done in thy name!" We want no Mirabeau here. We turn to the educated lover of his country, the one who believes in her institutions, who would not destroy but keep pure, and is filled evermore with the thought that true service of public is the greatest glory of man. We look to him in that court for the preservation of the liberty of the individual against the threatened dominance of wealth and organization; to reinvigorate the so-called glittering generalities of the Declaration of Independence; and to fill the land with such a spirit of independence and liberty as shall give new emphasis to the grand old song, "America, the land of the free." We look to him in that court to exterminate the assassin and to put an end to anarchism, so that nevermore in the history of this Republic shall the sad story be told that during forty years, out of seven men elected to its highest office three perished by the hand of the assassin.

Here, then, is my answer to the leader of the organization. The organization

may need only one trained in its workings—an always reliable cog in the machine; but the Republic needs something larger, stronger, grander—something more than a cog. It needs the educated man, and that educated man to whom organizations and individuals are simply instruments to subserve the higher interests and glory of the Republic. So it is that in these days of tremendous material activities there is as never before the need for educational institutions filled with the spirit of devotion to the public service. * * *

YALE IN ITS RELATION TO THE DEVELOPMENT OF THE COUNTRY.

[From the address by CYRUS NORTHROP, president of the University of Minnesota.]

* * * The real history of a country is not the record of its great men either in war or in peace. It is rather an account of the development and progress of the people; and especially so in this country, where the people's will can govern, and ultimately does govern, and where the wisest leaders, before they speak, listen for the voice of the people. The hope of the country is not in the astuteness and ability of its great men, but in the virtue, intelligence, and good sense of the great body of the people. An institution of learning whose influence, educational and ethical, has permeated the great mass of the people in all parts of the country, affecting alike their ideas, their mode of thinking, their habits of life, their conceptions of public and private virtue, of patriotism, and of religion, has impressed itself upon the character of the nation in a more permanent way and with more wide-reaching results than an institution whose chief glory is the development of a few party leaders.

Probably the man of real genius never owes his success entirely to his college. The greatest men of the world have not got their inspiration from the college curriculum nor the college faculty. Some men have been great without being trained at college, and some have been great in spite of being trained at college. The glory which has been shed on some colleges because eminent men have graduated there is not to be despised, but it is largely accidental. Miami University did not make Benjamin Harrison nor did Dartmouth make Daniel Webster nor did Bowdoin make Nathaniel Hawthorne nor did Yale make John C. Calhoun. These men would have been men of note no matter where they might be graduated. The spirit of man in them was a candle of the Lord, and they could not but shine. * * *

I pass on now to consider Yale's relation to the educational development of the country. Heredity of blood is much less complex than heredity of mind. Genealogical tables are sufficiently intricate, but they are simplicity itself in comparison with tables of the mind's ancestry showing the forces which have operated to produce and invigorate it. No one can possibly estimate the results which come from the work of the successful teacher in molding the character and quickening the intellect of his students, because the influence of this work goes on in future years in widening circles that at last reach the limits of the country and even of the world. Without any doubt many of the men before me to-day owe something for what they are to the teaching and inspiration of the first President Dwight, who put his own impress on Yale College and in no small degree on other colleges, and sent out into the world as students men who have made his influence a continuous power for more than a century.

So, too, a modest, courteous, scholarly gentleman, a graduate of Yale College, teaches his classes for years in Williston Seminary, each year sending a score or more of well-prepared boys to the principal colleges of New England. His life and influence are not such as the historian will take notice of. He has fought no battles. He has led no great parties to victory. He has outlined no grand policy for the country—perhaps he has not even written a book. But the influence of Josiah Clark, of the class of 1833, did not cease when his life was ended here; and

the Williston boys of his day will carry to their graves the memory of that manly and inspiring teacher; and if any of them have done good work in life, they will not hesitate to attribute it, in no small degree, to his teaching and the inspiration of his life.

Two very eminent Yale men who have had much to do with progress in education in this country, in a certain way, are Noah Webster, of the class of 1778, and Joseph E. Worcester, of the class of 1811, both lexicographers, to whose work most of the American people who are at all particular about their speech have been accustomed to refer as the final authority. The universal presence in schools in former times of Webster's spelling book and its disappearance in these later days will largely explain the increased illiteracy of college students in these days. There is nothing which the secondary schools need so much as a revival of Webster's spelling book, if we may believe published statements respecting the deficiency of students in the elements of English—a deficiency which is not always removed by extensive courses in English literature after students enter college.

The great educational work done by Yale is of course the direct work of training its own students. With few exceptions, the graduates of Yale have recognized the training they received as valuable and have been grateful to the college for it. That all chairs have not been filled with equal ability, that the same chair has not been filled always with uniform ability, that some professors have been better teachers than scholars and some better scholars than teachers, and that the undergraduates have always known just how great the faculty was, individually and collectively, every graduate of the college is perfectly aware. It can not be doubted that the work done here for two centuries has fitted men well for the struggle of life, and that most of the graduates of the college have been respectable and respected in the communities where they have lived and have been recognized as men of influence. But who can tell the story of their lives? In the triennial catalogue of Yale the names of about 20,000 graduates are recorded. Of these about 900 have held positions in Yale or some other colleges, about 3,000 have some special record for public office or work, and about 16,000 have no record beyond their academic degree. Who can tell how much the country or the world owes to these 20,000 men? The number is very small compared with the many millions of people who have lived in the two centuries just gone. And yet I do not doubt that in some way, direct or indirect, the influence of Yale has extended, through those 20,000 graduates, to a large part of these millions, affecting their education, or their ideas, or their principles, or their lives.

It would be invidious to mention the names of distinguished scholars who have contributed to build up the educational work of Yale and make it the potent factor it has been in the education of the country, because it would be impossible to name all. You of former generations and you of the present generation will readily call to mind men who by their learning, vigor, and culture did much more for you than merely instruct. The list is a long and noble one, of which no Yalensian can fail to be proud. Though great men have died, great men have been found to take their places, and the faculty to-day will not suffer in comparison with the faculties of other days.

The roll of presidents is a famous one; but however much we may admire the former presidents, of whom the men in this audience have had personal knowledge—Day, Woolsey, Porter, Dwight, or any of the earlier men—no one doubts that Arthur T. Hadley, son and intellectual heir to the ever-to-be-remembered James Hadley, is at least the peer of the best of them.

Most of the Yale men who have engaged in the work of education have had on them all their lives the stamp of Yale College, and have cherished the Yale ideas and have followed the Yale methods. No other single word describes what these are so well as "conservatism." They have held fast to what was good and

been slow to enter new and untried paths. The education that in the past had succeeded in giving men power has seemed to them good enough for the future, and they have been slow to accept knowledge without discipline or culture without power. As a result, the manliness, force, and independence which particularly characterize the Yale student have been reproduced throughout the country by the permeating influence of Yale training. "A boat race," said a newspaper correspondent last summer, "is never lost by Yale till the race is ended." He meant by that that every particle of strength would be exerted by a Yale crew to the last stroke, so that the race would finally be won, if it were possible, as it generally is. It is that resolute determination to do one's best in a manly way everywhere in life, without affectation or snobbery or parasitical sycophancy or the undue worship of ancestors, that is the characteristic mark of Yale men, and that is sure to appear wherever Yale men teach. And where have they not taught? North, South, East, and West, Yale educators have been at work founding colleges and academies and schools, formulating the principles of public education and making the policy of new States more liberal even than that of the mother New England, stimulating public interest in new methods and building up graded systems of popular education, with all the varied institutions needed for its protection. The earlier development of this work took the form of attempts to establish in new territory colleges as like Yale as possible. Princeton, Columbia, Dartmouth, and Hamilton may be taken as examples. The first three presidents of Princeton were Yale men, and to the efforts of the first president, Jonathan Dickinson (Yale, 1706), more than to the efforts of any other man, are due the founding and early development of Princeton University; the work of Aaron Burr, the second president (Yale, 1735), confirmed the Yale tradition in Princeton: and the name of Jonathan Edwards, the third president (Yale, 1720), according to Hallock, "contributed more to the fame of Princeton on the continent, short as was his presidency, than the name of any other official connected with its history." The first president of King's College, now Columbia, was Dr. Samuel Johnson (Yale, 1714). He was the only Episcopalian clergyman in Connecticut; was highly esteemed by Benjamin Franklin, and was urged by him to become president of the institution founded by him in Philadelphia, afterwards the University of Pennsylvania. When King's College was reorganized as Columbia, William Samuel Johnson (Yale, 1744), a distinguished United States Senator from Connecticut and an eminent lawyer, became the first president. He was the first graduate of Yale to receive an honorary degree in law, having been made a doctor of civil law by Oxford in 1776. Dartmouth College had for its founder and first president Dr. Eleazar Wheelock (Yale, 1733), for thirty-five years pastor of a church in Lebanon, Conn. The story of his work for the Indians and the development of his Indian school into Dartmouth College is too well known to need repetition here. The Yale stamp has always been on Dartmouth, and the spirit of the two institutions has been, and is, not unlike. Hamilton College was established by charter of May 26, 1812. It was founded by a Yale graduate, Samuel Kirkland, of the class of 1768, who drew his inspiration from Eleazar Wheelock, of the class of 1733, president of Dartmouth. Like Dartmouth, Hamilton was the outgrowth of Christian work for the Indians. For fifty years of its existence practically all the presidents and professors of Hamilton College were Yale graduates. Among them were some men so eminent that they will not soon be forgotten.

The ordinance of 1787, providing for the government of the territory northwest of the river Ohio, contained, among other remarkable articles, a requirement of public provision for education. Its language is: "Religion, morality, and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall forever be encouraged."

That ordinance has been most faithfully obeyed within the great region to

which it applied, every State carved out of the territory having made noble provision for public education, from the common school to the university. "Ohio University, established at Athens, Ohio, in 1802, bears the double distinction of being the first college in the United States founded upon a land endowment from the National Government, and also of being the oldest college in the Northwest Territory." Dr. Manasseh Cutler was the father of the university. He was a Yale man, of the class of 1765, and a minister of the gospel, pastor in Ipswich, Mass. He drew up the plan for the college and made it as much like Yale as he could, but the legislature modified his plan and assumed large powers in the election of trustees, so that Ohio University, though a child of Yale, did not ultimately resemble Yale as much as it resembled a State university. But that was not because Dr. Manasseh Cutler had forgotten the character of his Alma Mater or had broken away from his Yale conservatism, but simply because other influences were too strong for him to control. Yale influence was thus the first to start higher education in the great Northwest Territory, and the institution founded by Cutler still lives and prospers, with as many students as Yale herself had when I was an undergraduate.

Twenty-four years later, in 1826, when northern Ohio had been well settled by good people from Connecticut, Western Reserve College secured its charter. It was the first college established in the northern half of Ohio. The project to establish it originated with a Connecticut clergyman, Rev. Caleb Pitkin, a Yale graduate, of the class of 1802. The institution was modeled after Yale, not only in respect to the course of study, but also in respect to its governing board, a majority, as at Yale, being clergymen; and of this majority in the beginning four out of seven were Yale men. The first president who was a graduate of a college was Rev. George E. Pierce, D. D., a Yale graduate, of the class of 1816. Of him it is said that "he was thoroughly imbued with the Connecticut idea of a college." That means the Yale idea. Most of the faculty of Western Reserve College were Yale men, and "for a number of years the institution was modeled upon Yale College in the minutest particular." After this statement it is perhaps needless to add, in the language of the president of another Ohio college, that "from the first Western Reserve has been one of the very best colleges in the country." Graduates of Western Reserve are now at the head of several of the most important departments of Yale, while several of the presidents and many of the professors of Western Reserve have been Yale men. Henry L. Hitchcock, of the class of 1832; Carroll Cutler, of the class of 1854, both presidents, and Henry N. Day, of the class of 1828; Elias Loomis, of the class of 1830; Nathan P. Seymour, of the class of 1834; and Lemuel S. Potwin, of the class of 1854, may be mentioned, not as a complete list, but as a sample of the Yale men who have made Western Reserve, now expanded into a university, the excellent college it has always been.

Illinois College was established in 1829 at Jacksonville, in the limits of what is now the imperial State of Illinois. All the influence leading to the establishment of this college originated at Yale or with Yale men. The promoters of the enterprise "followed the advice of the president and professors of Yale College, and these venerable advisers warned against subjecting the institution to political or denominational control." Rev. Dr. Edward Beecher (Yale, 1831) was the first president. Rev. Dr. Julian M. Sturtevant (Yale, 1826) was his successor, and his presidency was long and prosperous. The college was founded when Illinois had no colleges and had a population of only 160,000. Yale put her impress on the young State and has kept it there to a greater or less degree ever since.

Beloit College was founded in southern Wisconsin in 1848. All of its first faculty of two were Yale men. Its first president was Rev. Dr. Aaron L. Chapin (Yale, 1837), who held the office for thirty-six years—till 1886. To-day, as ever, Yale is represented in the faculty of Beloit. The ideas of the founders of Beloit

were the same old conservative Yale ideas which have so generally characterized Yale educators, whether at home or abroad. As the Beloit men themselves expressed it, "Education was understood to mean chiefly a self-development of the individual under training to a true self-possession and command of his best faculties." To-day Beloit and Yale are alike presided over by one of their own brilliant graduates. What Arthur T. Hadley is to Yale, Edward D. Eaton is to Beloit. And if I were seeking in the whole West for a young Yale, I should go at once to Beloit; and I have no hesitation in saying that there is no denominational or independent nonsectarian college in the West that is better than Beloit. President Eaton is a graduate of one of the departments of Yale.

I have chosen to speak of these colleges, not because Yale men were to be found in their faculties—there are many colleges all over the country that can not be named to-day of which the same is true—but because these institutions seem to have been created as well as developed by Yale influence, and in their career they have largely affected the character of the great Northwest, all of them having been established most opportunely by Yale influence within the territory dedicated to freedom and education and religion by the ordinance of 1787.

Passing from the consideration of institutions intended to reproduce Yale, I come next to consider the work of a few men who have been notable as educators. Foremost among these, worthy to be classed with Horace Mann in consideration of the originality of his plans and the extended scope of his work, was Henry Barnard, of the class of 1830, who closed his long career of usefulness in this first year of the twentieth century, a man whose influence upon the schools and the secondary education of the country was so pronounced that the largest educational convention of the year, with its 10,000 teachers from all parts of the country, fitly paused in its deliberations to celebrate at one entire session the remarkable achievements of this distinguished educator. He was a man of original ideas. He believed in progress. He never rested satisfied with what most of the world was ready to accept as the ultimate attainment. For him there was always something better further on, and the great army of educators, good and bad alike, were compelled at last to follow his leading. And he is not the only one who has gone out from Yale and has done a broader educational work than that outlined by her traditional policy. Indeed, it may be confidently asserted that the work done by Yale graduates as educators outside of New Haven in recent years has shown a much less close conformity to the conservative ideas of Yale than that done in the first half of the century. Too much honor can not be given to Daniel C. Gilman, of the class of 1852, first president of Johns Hopkins. He went out from Yale to assume the presidency of the University of California, and after some years of vigorous work in which he succeeded in giving form, purpose, and life to that university he was called to take up a new work in Baltimore. Discarding the traditions of the old colleges of the country, he set himself to the task, not of building up another rival college for undergraduates, but of establishing a genuine university in which graduates of the best colleges of the land could advance in knowledge beyond the limits of all the colleges, under men distinguished for their original investigations and for their great attainments in the subjects which they undertook to teach. How great his success was you all know. How much the old colleges are indebted to him for a new impulse and for his grand leadership in creating a real university the faculties of those colleges very well know, and how great a service he rendered to the country can be witnessed by hosts of bright graduates of Johns Hopkins filling most important positions in most of the leading colleges of the country and bringing to their work a new inspiration derived from great teachers and new methods of scientific investigation. And among the great men whom Gilman gathered around him, with a judgment that was almost faultless, we are proud to name one of yesterday's ora-

tors, Dr. William H. Welch, the most distinguished pathologist and bacteriologist of our country. The direct influence upon the colleges of our country exerted by Johns Hopkins, planned and administered by Dr. Gilman, can hardly be overestimated. The methods of study and the learning of that university are being reproduced from the Atlantic to the Pacific in every institution that has money enough to secure graduates of Johns Hopkins for its faculty. A number of American colleges have thrown aside the bands which compressed them and have expanded into genuine universities. But it was Daniel C. Gilman who led the way, and every man who cares for progress in educational work and for the highest learning will acknowledge that the United States owes a debt of gratitude to Dr. Gilman for the work he has done outside of Yale. President Gilman * * * is even now ready to take up and carry forward successfully another very important educational work as director of the Washington Memorial Association at the capital. * * *

Of Andrew D. White, of the class of 1853, it is difficult to say whether he is more distinguished as a writer and thinker forty years in advance of his age, or as a diplomatist eminent for his services as the representative of his country at the courts of Russia and Germany, or as an educator blending the purposes of a land-grant college with the broad educational ideas of Ezra Cornell, and establishing and directing successfully for years that unique institution, Cornell University. Certainly his success in any one of these directions has been sufficient to satisfy the ambition of most men. As president of Cornell he did much to promote new theories of education and to enlarge the scope of educational institutions. The institution which he created had little resemblance to Yale, but it is not unlike the leading State universities of the West. The conditions of the endowments were doubtless in a large degree responsible for this; though no one supposes that Dr. White, even if given a free hand, would have attempted to reproduce a Yale at Ithaca. Something new, and as far as possible original, must be the outcome of his labors; and such, in the judgment of the Yale faculty at the time, was the outcome. As the years go on institutions, like men, learn from experience and soon drop off their unpleasant features and assume new ones that are desirable. This has been the history of Cornell, and, without losing in any degree her individuality, she has at last fallen practically into line with all the successful universities of the country. Dr. White gave to her service some of the best years of his life and not an inconsiderable part of his fortune.

Chicago University, which, though a mere child in age, has the size, strength, ambitions, and activity of the full-grown man, owes its existence and resources in the last analysis to the thought and suggestion of a Yale graduate; and owes its development, nerve, and originality to its first president, Dr. William R. Harper, who graduated at Yale as doctor of philosophy in 1875, and who as a professor at Yale had the opportunity to fill himself with the Yale spirit, if he did not secure it as an undergraduate at Muskingum College. Perhaps he did, for the first preceptor of that institution was David Putnam, grandson of Gen. Israel Putnam and a graduate of Yale in the class of 1793. Time will not permit an extended notice of Dr. Harper's great work in Chicago, and it is not necessary; for in these days the University of Chicago is very much in evidence, and the world knows how much the amiable, versatile, and progressive first president, Dr. William R. Harper, has done for education. I do not claim it all as a part of the glory of Yale, but I do claim an undivided and indivisible share.

I should be glad to pay a just tribute to the work done in Atlanta by Horace Bumstead, of the class of 1861; in Tulane University, at New Orleans, by William Preston Johnston, of the class of 1852; in New York by Charlton T. Lewis, of the class of 1853; in Rochester by Augustus H. Strong, of the class of 1857; in Cornell by Moses Coit Tyler, of the class of 1857; in Lincoln and Iowa City by

George E. MacLean, of the theological class of 1874, and by many others whose work is eminently worthy of special mention. But I can not further deal with individuals, but must briefly state the essential facts.

Yale furnished the first president of at least 18 colleges, and the list is remarkable as much for the distinguished character of the institutions as for their number. I name them: Princeton, Columbia, Dartmouth, University of Georgia, Williams, Hamilton, Kenyon, Illinois, Wabash, University of Missouri, University of Mississippi, University of Wisconsin, Beloit, Chicago, California, Cornell, Johns Hopkins, and Western Reserve. One hundred and five graduates of Yale have been president of a college, and at least 85 different colleges have at some time had a Yale graduate for president. Among these are the State universities of Wisconsin, Minnesota, Iowa, North Dakota, Pennsylvania, Louisiana, Mississippi, Wyoming, Indiana, Georgia, Missouri, Vermont, California, and Oregon, and probably others. Among the other colleges (not State institutions) are Dickinson, Middlebury, Hampden-Sidney, Amherst, Rutgers, Trinity, Lafayette, Transylvania, Tulane, Lake Forest, Pomona, and Whitman, and the Imperial University of Japan. More than 600 graduates of Yale have been professors in some college. I wish I could name them, including the distinguished men who have done their work here at Yale; but the mere reading of the names of professors, the chairs they filled, and the colleges they served would require the entire time permitted for this address. No one can doubt that the influence of these men in so many institutions in all parts of our country has contributed much to the advancement of higher learning in all sections, to the elevation of the people, and to the prosperity and true grandeur of our Republic.

The prairies that for hundreds of miles stretch in almost unbroken continuity through the West do not excite in the traveler to the Pacific any especial emotion of wonder. Such emotion is excited by the tall peaks farther west that tower heavenward—the sentinels of the Rockies—grand, gloomy, solitary, sublime. But the prairies, monotonously level and tame though they are, can feed the world.

The largest part of the alumni of the college are like the prairie—inconspicuous but useful. Some of the others are like the foothills—elevated but small in comparison with Shasta's heaven-piercing head. Comparatively few rise to mountain heights, and hardly one attains the grandeur of the solitary peak to whose majesty the world does homage. But the inconspicuous lives are not always the least useful lives. The men with the longest record in the triennial catalogue are not necessarily the men who have done the most good. Many a graduate, as principal of an academy, a high school, or a preparatory school of some kind, has done a work that in its breadth, power, and beneficence is not equaled by the work of more conspicuous men in higher fields. I would rather have the glory which rests upon the memory of Dr. Arnold, of Rugby, than the halo which encircles the proudest don of Oxford. It is a great thing to be a real thinker. It is a great thing to have a noble character. But it is a greater thing to plant your thoughts in intellects where they will grow and to put your principles, which have made character, into hearts where they will be cherished. In this thought the teachers of all grades can rest content. And Mother Yale, as she calls the roll of her sons who are worthy of her love, will not omit a single one, however humble, if only he has done what he could.

THE KINDERGARTEN IDEAL OF NURTURE.[a]

By SUSAN E. BLOW.

The distinctive merit of the kindergarten is its proclamation of conscious nurture as a universal and compelling ideal. We may outgrow all the instrumental-

[a] Read before the International Kindergarten Union, at Boston, 1900.

ities through which it now seeks to embody this ideal. We may increase and improve its gifts and occupations. We may create new and more beautiful plays, pictures, and stories. We may, in time, call forth a genius who will write a more profound and tender mother play. But to Froebel must belong forever the glory of having first appealed to humanity to consecrate itself to the high privilege of nurture and of having defined so clearly what nurture implies that the imperative ideal can never again cease its knocking at the gate of conscience.

The name which Froebel gave to the institution he founded suggests the ideal he was seeking to embody. Gardens are not wild nature, but "nature mingled with man's mind." The gardener recognizes that each plant is a plastic energy which obeys an inward though unconscious ideal. He can modify plants only as he influences them to modify themselves. Planting them in prepared soil, granting them their requisite supply of heat and moisture, giving them plenty of room to grow, watching, tending, grafting, and, if need be, pruning them, he aids them to vent their energies in such ways as to secure their healthy development.

This analogy suggests the first specification in the Froebellian ideal of nurture, which is that nothing shall be poured into the child, but that the privilege of the kindergartner is to incite him to pour out himself. Giving expression to what is in him, he shall begin to discover what he is. Piqued by the contrast between the object in his mind and his crude product, he shall freely submit himself to the drudgery necessary to acquire skill. Stimulated by production to investigation, he shall produce himself as student and seek with reverence and docility to appropriate the rich treasures of human experience. Thus play, or self-expression for the mere sake of self-expression, marks the earliest period of development; constructive work, or the production of consciously planned objects, characterizes the second period; study, or the temporary ascendency of the learner over the doer, distinguishes the third period; while the goal of the whole educational process is the man or woman capacitated by assimilation of the wisdom of the race for the highest practical efficiency and the most resolute and loving self-devotion.

The kindergarten receives the child at the climax of that first period of development during which the free energy of the soul vents itself in the form of play. Its distinctive feature is that into the form of play, which is the form of freedom, it pours those rational ideals which are the substance of freedom. Through this infusion of the ideal it makes play the first instrument for conquest of the external world and the spontaneous self-incitement of the soul to self-mastery.

Had Froebel only emphasized the fact that mental life, like physical life, works from within outward, and that play is the highest reach of childish activity because it is "self-active representation of the inner life from inner necessity and impulse," he might have become the greatest of educational anarchists, but he could never have been the wise and tender apostle of nurture. His claim to our admiration and gratitude is, that having recognized that since mind develops through self-expression, we must not pour into the child, but help him to pour out himself, he advanced to the further question, What self shall the child pour out? and answered unequivocally, he shall pour out the rational self, which is implicit in every human being, that self which is defined in the course of history, revealed in art, literature, religion, incarnated in institutions, and interpreted in philosophy. Latent in each child of man is that generic humanity which has wrought all these marvels. Therefore, in their spontaneous play, little children try to repeat the typical deeds of mankind. Their attempt is self-defeating, because it is blind, and their plays are not pictures, but caricatures of human effort and achievement. Taught by his genius what little children were trying to do, Froebel came to the help of nascent humanity with the ideal of nurture and the instrumentalities of the kindergarten. By wisely abetting the child's efforts to dig, sew, weave, build, dance, sing, model, draw, and paint, he made these

traditional games and occupations a means of approach to the practical fine arts and a primal revelation of will as the power which converts matter to human uses and informs it with human ideals. Then, seizing upon those imitative plays wherein the children of all nations and all times have tried to picture the domestic, social, industrial, political, and religious life into the midst of which they are born, he evolved a series of dramatic games through which the playing child begins to discern the lineaments of his ideal selfhood, and thus to recognize the difference between what he is and what he ought to be.

Reverting to the analogy of the garden as a place where human intelligence assists the struggle of nature, we may remind ourselves that inferior plants are improved by grafting upon their stock a scion or branch of some more highly developed plant of identical or nearly allied type. Grafting does not diminish the energy of life within the plant, but utilizes it to a finer result. It enables the wild briar to produce garden roses and the crab-apple tree to yield large and luscious fruit. The superiority of the grafted plant is due to the fact that the scion is allied in the form of its energy to the stock upon which it is grafted, but has already developed the higher potencies of this energy. In exact analogy with this procedure the kindergarten grafts upon the instinctive plays of universal childhood the higher realization of their own ideal, and thus while preserving unimpaired the form of freedom, makes play the first means of revealing, developing, and confirming the colossal as opposed to the petty selfhood.

It is because Froebel's apotheosis of play is not yet generally understood that too many existing kindergartens caricature his method and too many critics confound his ideal with the practice of his blind or half-seeing followers. Any person who asserts that the kindergarten is a place where children should play what they choose, as they choose, proves that he has mastered but one aspect, and that the less original aspect of Froebel's thought. Recognition of "the deep meaning that lies hid in childish play" is as old as Plato, and in Froebel's own time this meaning had been brilliantly disclosed by many great writers. No educator to-day questions the value of free play. No educator denies that through the untrammeled exercise of his own proclivities the child reveals and establishes his individuality. No educator challenges the assertion that without free play the child would lose all originality and become a mere machine. No educator refuses assent to the proposition that in his free play the child should not be interfered with, but should be left to exercise his powers according to his own caprice. On the other hand, no disciple of Froebel who has the least insight into his educational ideal will claim that free play belongs in the kindergarten. The child does not need the kindergartner to help him do what he pleases, as he pleases, neither does the kindergartner need two or three years of training to enable her to accomplish this feat.

To deny that Froebel attempted to rationalize play is our first offense against the great apostle of nurture. Our second and more heinous offense is the claim that in later periods of education he wished to preserve even the form of play. In common with all educators worthy of the name, he recognized the ineradicable distinction between play and work, but he advanced upon other educators through tracing the process by which childish play passes over into work, and by creating the kindergarten to abet the evolutionary effort of the mind. If we accept the formula of science, that all differences of kind result from the gradual accumulations of differences of degree, we must recognize that Froebel has done original and valuable service in abetting the process of mental evolution, and if we study fairly the results of his method as carried out in the best kindergartens, we shall be convinced that it increases power of attention and love of work.

The tendency to transform the kindergarten into a play room where children act out their own caprices is simply one manifestation of a spirit visibly at work

in many other spheres. In our family life it is depriving children of their only natural and inalienable right—the right to pass the period of childhood in an atmosphere of love, faith, and obedience. Parents are so afraid of attacking the child's freedom that they make him an anarchist, and foster in him from the hour of birth the feeling that his whole little world must adapt itself to his whim. The worst faults are met with timid protest, and righteous indignation against all that is base, cruel, and impure is dead as that faith in a moral and militant universe, whence it originally proceeded. From a home where his caprice has been his only law the child too often passes into a kindergarten where caprice is both theoretically and practically extolled as the great instrument of education, and where nothing is required of any mother's darling but that which he himself elects to do. From this caricature of a kindergarten he is promoted to a school where his own ignorant preference determines his studies, and whose teachers, beguiled by the seductive word "interest," relax moral discipline and lose all power to incite attention. During the whole progress of his so-called education he is reading books which celebrate the exploits of detached and self-sufficient boyhood and youth. What wonder that by the time he is sent to college or thrown out into life he has confounded the idea of freedom with the idea of omnipotence, and has been confirmed in the ruinous fallacy that the universe exists for his sole behoof.

The original germ of the pestilent malady which has attacked our family and school life, and whose ravages, were this the fitting time and place, might easily be shown also in our industrial, political, and religious life, is a sometimes conscious, but more often subconscious, definition of freedom which preserves its form, but destroys its substance. No man is free who does not himself decide freely what he will do. No nation is freely governed which is not self-governing. No church respects the freedom of the soul which imposes upon its votaries uncomprehended dogmas. True; and yet no man is free who, however freely he chooses what he will do, chooses to do evil; no nation is free which has not raised in rational laws bulwarks against human passion, and no religion is free save one that knows and declares the true God—the Being Himself eternally free and eternally the conferrer of freedom. Mere spontaneity without rational ideal is the freedom of Caliban—"Freedom, freedom, heyday, heyday freedom!" It is the freedom which Tennyson describes as "Freedom free to slay herself and dying while they shout her name." It is the freedom which Goethe satirizes in Auerbach's cellar—"Where boon companions filled with wine declare they feel like swine," so cannibalic jolly. Upon which Mephistopheles sarcastically comments, "See! now the race is happy; it is free." It is the freedom-destroying freedom whose dialectic has been once for all traced by Shakespeare, a freedom wherein—

> Each thing meets
> In mere oppugnancy. The bounded waters
> Should lift their bosoms higher than the shores,
> And make a sop of all this solid globe;
> Strength should be lord of imbecility,
> And the rude son should strike his father dead;
> Force should be right, or, rather, right and wrong,
> Between whose endless jar justice resides,
> Should lose their names, and so should justice, too.
> Then everything includes itself in power,
> Power into will, will into appetite;
> And appetite an universal wolf,
> So doubly seconded with will and power,
> Must make perforce an universal prey,
> And, last, eat up himself.

The truth is that no man knows how to be free until he has been educated for freedom. From its original slavery to the sensations stirred by organism and

environment mind emancipates itself through commanding itself to attend to one thing and neglect all others. Hence the individual is capacitated for intellectual freedom through the athletic discipline which constantly raises attention to a higher power. In like manner he is qualified for moral freedom by that warfare between his lower and higher nature incited by directing his attention to moral ideals, and he has achieved such measure of political freedom as he now enjoys through that age-long struggle which has defined the rights which political freedom implies. Political liberty does not mean to do as you please any more than does moral or educational liberty. Political liberty means the right of each individual to be secure in his person, house, paper, and effects; it means freedom of speech, of the press, and of religion; it means even for the criminal the right of trial by a jury of his peers; it means for all citizens education and the possibility of participation in the governing power. We are so accustomed to all these specifications in the idea of freedom that we sometimes forget that they do not come by nature, and ignore the fact that until a people learns them it can not be free. Let us remind ourselves that for a single implication in the idea of freedom (the relationship between taxation and representation) our Revolutionary war was fought, and that because we ourselves violated in practice a principle of freedom which we had proclaimed our land was drenched with blood during four terrible years of civil conflict.

Substantial freedom is never a dower. It is always an achievement. When, however, any individual has himself learned how to be free he can nurture other individuals into freedom, and when a great people has learned how to be free it can nurture less advanced people into freedom. Such nurture is possible because all ideals of freedom, whether intellectual, moral, or political, are concrete definitions of that self-shaping energy which is the true self in every individual, and which in all individuals is alike. What do we mean when in our Declaration of Independence we affirm that all men are born free and equal? Surely through the coercion of heredity and environment all men are born unfree. Surely through differences of natural endowment and opportunity all men are born unequal. Shall we, therefore, confess with Rufus Choate that the great instrument from which we date our national life consists after all of mere "glittering generalities," or have we eyes to discern with the seer of Concord its "blazing ubiquities?"

Strange as it may seem to all who have learned to know their true selfhood, most of us confound our selfhood with the nature with which we were born. Really, this so-called nature is nothing but the matter which is given to the individual to transform precisely as the whole world is given to man collectively. The mere deposit of ancestral deeds in nerve cells and brain fibers is not you. You are the energizing spirit who is to seize upon this given material and build therewith. Even the character you build is not you, for incited by false ideals you may build a character which, later, you, the wise judge, shall condemn to be torn down. Your nature is what your ancestors made by deeds. Your present character is what you have made by deeds. Your true self is the self-making, self-unmaking energy which teaches some nerve cells new reaction, which atrophies others by disuse, which refuses to be bound by past failures, which scorns to be the slave of past successes, but ever young, fresh, radiant with divine activity, achieves the peace of eternal self-creating.

With insight into this truth we know that the author of our great Declaration was right, though perhaps he may have written better than he knew. By nature man is a slave; nevertheless he is born free in virtue of his power of self-making. From the point of view of endowment and opportunity inequality is the law of our life; nevertheless, since each man is a self-shaping energy all men are equal, and before this supreme and final equality the greatest temporary inequalities vanish. Enlightened by this truth we know that the immaculate conception is

no isolated miracle of history, but the perpetual miracle of human experience, and that every man claims with right "heredity from God." Therefore, to free the meanest slave the hero may gladly shed his blood; therefore, to redeem the cannibal the missionary may wisely accept the possibility of martyrdom; therefore, in consciously nurturing the divine self in the little child the mother and kindergartner may enter into a joy unspeakable and past finding out.

The thesis I have been maintaining is that freedom and nurture are correlative ideas, and that because man is a free, self-shaping energy, he can be educated to realize the ideals of freedom. If, however, I have succeeded in pointing out the difference between mere spontaneity and rational freedom, you will anticipate the statement that the converse of my thesis is also true, and that the child, the savage, the ignorant man, the evil man, need nature, not because they are free, but because they are unfree. Hence the aim of nurture itself is to lift its object beyond the need of nurture. When the child matures, when the ignorant man learns, when the evil man reforms, he passes out of the realm of nurture into the realm of justice, which, granting him absolute liberty to choose his deed, holds him accountable for the choice he makes with all its consequences. The youth ready to undertake his share of the world's activity enters as member into the great institution of civil society, to come under its stern law, that he who will not work shall not eat. He enters social and political life to come under the sterner law, which metes to him the reward of penalty for his every deed. The great problem of all education is by nurture to capacitate for freedom, and in proportion as the capacity for freedom is developed, to deliver the object of nurture even from its own influence. With this problem our greatest educators and greatest statesmen are wrestling to-day.

Since, however, the world will always have its infant individuals, and for many ages is sure to have its infant races and nations, I hold that while Froebel achieved a practical revolution in the education of little children, by embodying in the kindergarten games and gifts the ideal of conscious nurture, he began a far greater revolution by his definition of this ideal, and by his appeal to all mature humanity to accept its high privilege. The deepest implication of his thought is that correlation between the ideal of nurture and the ideal of potential as opposed to actual freedom, which I have tried to indicate. Since the child is a self-making energy he can not be molded by external pressure into the image of an ideal in the mind of the educator. Since he is not only a self-making energy, but possesses likewise a nature deposited by ancestral deeds, and since he himself is blind to the difference between his true selfhood and his merely natural proclivities, it is a parody of education to claim that he shall determine what he is to do and how he is to do it. But since the self-making energy which constitutes his true selfhood is in every individual, and is the same in all individuals, since it is defining itself in history and revealing itself in human institutions, the educator who knows its nature can influence its manifestations, and thereby help the child to a higher and more balanced development. It follows that those who would enter upon the privilege of nurture must themselves be nurtured into nurturers, and the implicit logic of Froebel's life reached its explicit conclusion when in his reverent age, he stood among the eager girl students to whom he declared his ideal, and in whom he fanned to flame the spark of self-consecration. At Liebenstein the great apostle of childhood became also the apostle of womanhood. Through the kindergarten he had transfigured the nursery and the elementary school. With the establishment of the first kindergarten training school he began a movement whose final triumph shall be the conscious education of maidenhood for the supreme vocation of womanhood.

Are we not all beginning to feel that there is some crying defect in the education we give young women? Do we not sometimes wonder why, since the majority

of women are to be wives, mothers, and home makers, we fail to prepare them for these vocations? Does it take long years of practice to master a musical instrument, and yet may any woman by mere natural instinct play upon that most delicate of all instruments, the soul of a young child? Is good housekeeping a gift of nature, or may it be that the waste in some homes, the unpalatable and indigestible food in others, the want of taste in others, might be prevented by a better education? May it be because we do not teach young women the things they ought to know that the unrest of women waxes every day, and that impulses and tendencies which are developing an increased momentum threaten to make the men of all civilized races nomads without families and without homes? And, finally, must there not be something radically wrong in an education which is obscuring in the minds of young women the ideal of sweet reasonableness, which is quenching in their hearts the impulse of self-devotion, and which is taking from their manners that gracious courtesy and charm which are the outward and visible signs of modesty, gentleness, and self-control?

Men of science have made us familiar with the fact that when for the first time a mother forgot herself in caring for her babe, nature emerged from darkness into the morning twilight of her last and greatest creative day. The light which in that silent and dateless moment dawned feebly in the heart and upon the world now blazes in the solar ideals of ethics and religion, and kindles countless responsive flames of patriotic service, philanthropic devotion, and pious self-surrender. Consciously repeating the unconscious process of social evolution, Froebel places the little child in front of the great army of advancing humanity, and in his cry, "Come, let us live for the children," utters in articulate speech the ideal whose blind impulsion set in motion the drama of human history. The feebleness and helplessness of infancy called forth the impulse of nurture and created mothers. The dependence of mother and child called forth in man the impulse of protection and created husbands and fathers. The close and constant intercourse between members of the primitive family quickened a sense of parental, filial, and fraternal obligation, and stirred in the depth of the human soul its first faint presentiment that "man is made of social earth."

Since all higher institutions have been evolved from the family, and since the creator of the family was the baby, evidently the baby was the founder of civilization, and civilization should do all she can for him who has done so much for her. Or, to be serious, since blind nurture was the moving force in the original drama of social evolution, may not a conscious and compelling ideal of nurture qualify us to reenact this drama in a higher form, and may not the prologue to this new drama be the dedication of woman through a sufficing education to her supreme vocation?

Those who are familiar with the work of the best kindergarten normal schools know that they give something which students do not get either in school or college, and there is developing so strong a sense of the value of this distinctive gift that I expect in the near future either to witness the invasion of the girls' college by the kindergarten, or to behold a general evolution of kindergarten colleges which shall supplant all institutions where that impulse of nurture which originally created woman, and which must give her forever her distinctive type, is ignored in her education. For while the true woman craves higher education and rejoices in the expansion of her personality, she is unwilling "to deck herself with knowledge as with a garment, or to wear it loose from the nerves and blood that feed her action." The kindergarten training school says to her: "Learn all you can, be all you can, and then use all you are and all you know to uplift, fortify, and illuminate that nurturing activity to which nature has devoted you, for which history has prepared you, and to which you are forever called by the appealing voices of the feeble infant, the helpless child, the erring youth, the despondent

toiler, the sufferer racked by pain, the mourner sinking in a flood of sorrow, and the sinner heartbroken by the vision of what he is in the light of what he ought to be." Thus lifting the aboriginal impulse of womanhood into a conscious and compulsory ideal, the kindergarten satisfies both the new and widely felt craving for self-culture and the radical feminine need of self-consecration. When I am in my most hopeful mood I dream of a great college for young women where this phase of the Froebellian ideal may receive a more adequate development than has been possible hitherto. The city that first establishes such a college will take the next great step in the forward march of education.

Froebel did a great deed when, having clearly defined the ideal of conscious nurture, he sought its practical embodiment in the kindergarten. He did a greater deed when, recognizing that through nurturing activity mere feminine humanity is lifted into womanhood, he established the first kindergarten training school. But he did his greatest deed when, having risen to the thought that nurture was a duty obligatory upon man no less than woman, he declared that the final goal of all education was to nurture nurturers. "Answer me," he says, writing to fathers and mothers, "answer me but one question. What is the supreme gift you would bestow on the children who are the life of your life, the soul of your soul? Would you not above all other things render them capable of giving nurture? Would you not endow them with the courage and constancy which the ability to give nurture implies? Mother, father, has not our common effort been directed toward just this end? Have we not been trying to break a path toward this blessed life? Has not our inmost longing been to capacitate our children for this inexpressible privilege?"

Much educational practice is feeble and vacillating because neither parents nor teachers know just what they want to do. Froebel is spendidly consistent because his ideal never wavers. Recognizing that one great object of education is the nurture of nurturers, he takes every step with his eyes fixed upon this goal.

In view of the grand privilege to which the new age invites the world, must we not recognize that the farthest sweep of Froebel's prophetic vision is that the ideal of nurture is not exhausted in its application to infancy and early childhood, neither does it bind the conscience of woman while leaving unbound the conscience of man. Indeed, the more heroic work of nurture must be done by men, or must in large measure remain undone. Every modern nation harbors in its midst savages, barbarians, pagans, and, worse than all of these, degenerates of many kinds. Nevertheless, while all varieties of intellectual and moral type coexist in the modern world, that world as a whole is inspired by a new ideal. Past epochs of civilization granted freedom and opportunity to individuals and to classes, and their proudest achievement was the production of great personalities. But no ancient nation even dreamed of claiming for all men freedom and opportunity to seek life's highest ends. To-day we flout the idea that the world exists for the benefit of an elect minority, and demand for the whole of humanity every right that we claim for ourselves. This demand of our own souls can be satisfied only as we consecrate ourselves to new duties, and supremely to that duty of loving nurture through which alone men can be capacitated for freedom. The savages of America must be nurtured into civilization. The pagans in America must be nurtured into Christianity. Nor is our duty done if we limit our nurturing activity to our fellow-countrymen. We stand at the dawn of a new era, an era wherein great Christian nations are called upon to devote themselves to brave and loving nurture of barbarous and arrested peoples. To refuse this call by selfishly exploiting such peoples for our own advantage will mean to forego our supreme privilege. To respond to the appeal of the new historic era by a universal extension of the ideal of conscious nurture will mean the realization of man's long dream of a golden age.

I have made confession of three articles of the kindergarten creed. We believe in conscious nurture of the free self-activity of childhood. We believe in the consecration of woman to a nurturing life. We believe that men and nations should participate in woman's supreme privilege. The fourth article of our creed gives the reason for the justification of all the others. We believe that God is the supreme nurturer, and that the world is the cradle wherein He nurtures nascent humanity so that it may grow into His image. "I count it," says Emerson, "a sufficient explanation of that phenomenon we call the world that God would educate a human soul. The nurturing activity which satisfies omniscient love through all eternity may well appeal to what is likest God in the human soul."

The final source of all ideals of life is the character of the Being from whom the universe is supposed to originate, by whom it is sustained, and approximation to whom is the impulsion under which it moves toward its far-off goal. Thus the despotisms of Asia are imitations of the despotism of Brahm, and the mental arrest of Asia is an object lesson on the blight of intellect by the doctrine of a supreme principle which is not akin but antagonistic to human personality. Such freedom as occidental nations have thus far achieved is the direct outcome of belief in a social and self-communicating God, ever calling forth from the abyss of nothingness souls free like Himself, and to whom He gives an infinite universe as a theater of activity and an instrument of education. To know such a God is to be inspired with the correlative idea of freedom and nurture, for only the free soul can be nurtured and only conscious nurture can respond to the need of the free soul. It will always be true that—

> He only earns his freedom and existence
> Who daily conquers them anew.

It will always be true that the "eternal womanly," or that divine nurturing activity, whose fairest natural analogue is mother love, makes possible the struggle for freedom and assures to it a certain victory.

BIOGRAPHICAL NOTICE OF JOSEPH LE CONTE.[a]

By S. B. CHRISTY,

University of California, Berkeley, Cal.

In the death of Joseph Le Conte, at Yosemite, Cal., on July 6, 1901, the institute has lost one of its most distinguished honorary members and the University of California its most beloved professor.

The South has produced many distinguished men. In the law, in politics, and in war they have made their mark, and we are all proud of their records. But in science not so many have achieved distinction. The Le Conte family is thus the more remarkable, in that it has produced three men of eminence in that field, while there are descendants of promise yet to be heard from.

Joseph Le Conte was born February 26, 1823, at Woodmanston plantation, Liberty County, Ga. He came of Huguenot ancestry on his father's side and Puritan on his mother's. His mother died when he was only 3 years old, and he was brought up by his father with the most tender care. This father was a very remarkable man; a good physician, a skillful chemist and naturalist, a great hunter, fond of all manly sports, and a passionate lover of nature. Young Le Conte owed much to his father's training, but he was partly prepared for college by Alexander Stephens, who entered into all the sports of his pupils, and strongly

[a] Abridged from a paper read before the American Institute of Mining Engineers at the Mexican meeting, November, 1901, and printed in Vol. XXXI of the Transactions of the Institute.

impressed them with his own intense hatred of lying and all forms of deceit. His training for college comprised the "Three R's," Latin and Greek through Livy and Xenophon, and mathematics through algebra and geometry.

His life on the plantation at that time was an ideal one; and, as one reads his description of it in his autobiography, one can not but regret the passing away forever of a stage of civilization that made such an existence possible. It was an admirable training for the future lover of nature. Hunting, fishing, boating, swimming, riding were constant sources of enjoyment and profit. In all forms of athletics he was wonderfully proficient. Of a slight, but wiry build, he was capable of performing many feats of strength and agility better than many strong men of nearly double his weight.

At 14 he was prepared to enter college, but it was wisely decided to have him wait a year; so at 15 he went to college at Athens, Ga. Of this period, he writes:

I may add, here, that for me the so-called dangers of college life never existed. I saw much of vicious conduct among students, of course; but whether such example injures or not depends entirely on inheritance and early training. For myself, I never felt the least temptation to join in vicious courses, nor have I ever been enticed by others to do so. College students are not so bad as some seem to think. They never deliberately try to lead anyone astray. They simply seek congenial association. Indeed, I believe that college is the safest place in the world for young men. It is impossible always to remain in the bombproof of home. One must go out into the world and fight the battle of life. Now, college men are a picked set, far safer than the average.[a]

He graduated at Athens, Ga., in 1841, at 18 years 5 months. There was then no opportunity to study nature for its own sake, and as the nearest approach to it we find him, in 1843, a student of medicine in the College of Physicians and Surgeons in New York. In the summer of 1843–44 he took a trip of several months, with one of his cousins, right into the heart of what was then a wilderness, inhabited only by Indians and Indian agents. His course took him through the Lake Superior country (at that time just being prospected for copper) into Canada, and then down the Mississippi River, long before such towns as Minneapolis were founded.

This trip left a great impression upon his mind. He made en route a number of geological observations, the importance of which he was then too young to realize, which were afterwards confirmed and more fully appreciated by other observers.

In 1845 he graduated from the medical school and settled down as a practicing physician in Georgia.

In the practice of medicine he was moderately successful; but his heart was not in the work. He felt, probably, more keenly than most, the responsibility for the life of his patients, and the lack of preparation which the medical training of that time gave for what he himself terms "the awful responsibilities of a medical practitioner." Then, too, it was characteristic of the man to shrink from practical details; they did not interest him; his nature reached out to solve the larger problems of the mind. He had at this time three medical students, and teaching them interested him far more than the practice of medicine. He confesses to having felt a strong sense of wasted life, though he carefully concealed it from all, even from his wife.

Richard Owen, the comparative anatomist, first interested him in the "homologues of the human skeleton," and this led him to decide shortly after (in 1850) to become a pupil of Agassiz. He went to Cambridge in August:

The university does not open till October, but that does not matter. I did not come to Harvard to enter the university, but only to study with Agassiz, and

[a] This, as well as the other quoted matter in this paper, is taken from Professor Le Conte's unpublished autobiography, a work which Professor Christy characterizes as one of the most fascinating stories he has ever read.—ED.

we (Dr. Jones and myself) went right to work. The first work he put us at was very characteristic of the man. He thought a moment, and then pulled out a drawer containing 500 to 1,000 separated valves of unios.

There were 50 to 100 different species, all mixed up. "Pair these valves," said he, "and classify into species—names no matter—but separate in species." He left us alone—very severely alone. We worked on these shells for one whole week. He looked at the work from time to time, but made no remark. Finally we told him we had done the best we could. He examined carefully, and was greatly pleased. It happened just then that there entered the room a friend of his just from Europe, M. Ampère, son of the great electrician. He introduced us, and remarked that these pupils of his had just amended correctly the classification of Lea, the great authority on unios.

I only give this as an example of his method of teaching. He constantly carried it out, with some modifications. He set us tasks; we worked unaided, with only a hint here and there. As we became better acquainted, however, finding us already well advanced in thoughtfulness, he often gave us long talks, expounding his biological philosophy and inviting discussion, which we were not slow to accept. He thus scattered unpublished thoughts and suggestions broadcast on all sides with a free hand. * * *

There are two types of great men. Men of one class are great by the quantity and importance of their work, but when you come in contact with and measure them intellectually they seem of ordinary stature. Their work is greater than themselves, though surely patience and persistence are admirable qualities which ought to be added to their work in estimating their greatness. Those of the other class, the nearer you approach them the greater they grow. They are themselves greater than all their visible results. These are the great teachers. Their spirit and enthusiasm are contagious, their personality is magnetic. They not only think intensely, but they are the cause of thought in others. Agassiz was pre-eminently of this class.

A year later (in 1852) Le Conte accepted the professorship of science at Oglethorpe University, Midway, Ga. He was expected to teach all the sciences except astronomy, which went with the chair of mathematics. For $1,000 a year he actually did teach mechanics, physics, chemistry, geology, and botany. A year later he was called to a better position in his own university at Athens, Ga., where for five years he was able to confine himself to natural history, though he had to teach French for a year. In 1857 he was called to the professorship of chemistry and geology at South Carolina College, Columbia, S. C., where he remained till after the war.

Speaking of the outbreak of the war of 1861, he says:

At first I was extremely reluctant, and even opposed, to the movement. I doubted the necessity of secession; I dreaded the impending conflict and the result. A large number of the best and most thoughtful men in the South felt as I did; but gradually a change came about—how, who can say? It was in the atmosphere. We breathed it in the air; it reverberated from heart to heart; it was like a spiritual contagion—good or bad, who could say? But the final result was enthusiastic unanimity of sentiment throughout the South. Those who were the latest and the most reluctant, because they saw the seriousness of the result, were also the most earnest and most reliable. Those who did not join in the movement (with very few exceptions, like Pettigrew) were untrue men in every way, both North and South alike.

Professor Le Conte carried on his teaching till the college was disbanded, as the war became more desperate, and then offered his services to the Confederates, and was employed as chemist and geological expert in the search for deposits of niter and the manufacture of explosives. He suffered all the horrors of war except death in his immediate family. For three years he had the barest and coarsest of food, never tasting tea, coffee, or sugar for that time, and, strange to say, though fond of them, hardly feeling their loss. At the end of the war all his property was gone. His Georgia home had been in the path of Sherman's army, and everything he possessed except the land was gone.

Regarding the actual loss to the South from the emancipation of the slaves, Professor Le Conte maintained at the time, and always afterwards, that it was

not necessarily a loss like that due to the burning of a house. He pointed out that—

Where the black labor remains reliable, and the management is judicious, the land makes as much as ever it did, and the owner is as rich as ever he was; he has suffered no loss. * * * But in some places the labor continues to be utterly unreliable. This is especially true of the so-called "black belt," where the blacks are greatly in excess, and still more especially true in Liberty County, Ga., where my own landed property is situated. I have there more than 2,000 acres of land, half of it rich land. It has never made me one cent since the war. The negroes will not work for wages. They can live on fish, crawfish, and oysters, almost without work. A little patch of cotton will make more tobacco and coarse clothing than they can use. They have no ambition to improve, and live almost like animals. The whites have nearly all quit the country and gone somewhere else. The whole lower and richer part of the county is practically given over to the blacks.

In 1869 Professor Le Conte left Columbia to accept a call to the University of California, whither his brother John had preceded him a year before. He was expected at first to teach, alone and without assistants or laboratory appliances, botany, zoology, and geology. He was compelled to give his instruction entirely by lectures. This he did for many years, and he developed a method of lecture instruction that has probably never been excelled by any teacher of these subjects. Later he was relieved from the heavy task of carrying these three subjects, and confined his teaching entirely to geology. But it was doubtless fortunate for his students that he taught these related subjects for so many years, since otherwise his wonderful grasp of the doctrine of organic evolution would have been impossible. As it was, he welded these three subjects, zoology, botany, and geology, all studied by the comparative method, into an organic unity that made a never-to-be-effaced impression on all his hearers.

It was probably for him, and certainly for California, fortunate that he came when he did to the State University. One can best understand this from his own words:

I have said that my intellectual activity was powerfully stimulated by my coming to California. There were many reasons for this: First, the reaction from the long agony of the war. Abstract thought was almost impossible, for anxiety during the war, and the presence of its ruinous results afterwards. Second, the splendid field for geological research offered here. Third, contrary to my expectations, I found here an exceptionally active, energetic, and intelligent population. What California wanted then (and still to some extent wants) is a more thorough organization of society—an organized public opinion—conventions, traditions—with them, wholesome restraining influences on the weak and the vicious. But the strong and the virtuous do not need these—indeed, are perhaps better without them. Family and name have little influence here; every man must stand on his own merits.

I threw myself into my work with all my energy. I enjoyed my teaching intensely, and this made my teaching correspondingly interesting to my students. I never tire of my subject. Although I have gone over my course in geology now fifty times, I am still as interested in it as ever. Although the whole subject is perfectly familiar to me, I never enter my lecture room without two hours' intense preparation. I must revive my interest; I must get up steam. I am firmly convinced that investigation ought never to be separated from teaching, as many suppose; that not only is one a better teacher from being an investigator, but he is also a better investigator for being a teacher. Nothing so clears up the thought as the earnest attempt to make it clear to others by personal address. Almost every good thought I ever had came first into my mind during the heat of direct preparation for my class lectures. Nearly everything I ever wrote was first given in my class room, and written out and perfected afterwards. Whatever success I have ever achieved in teaching has been the result of my intense interest in my subject and in my students.

His first geological studies date back to that long trip to the Lake Superior region, where he was present at the first opening up of the copper mines; but even then he was more interested on the scientific than on the technical side

His work with Agassiz on the coral reefs of Florida gave another impetus to his tastes. His search for nitre deposits for the Confederate government, during the dark days of the war, brought him into the practical branch of our profession. But his coming to California, then a virgin field to geologists, inaugurated a new era in his life.

In his vacations he ranged the foothills and the Sierras of California, the Cascades of Oregon, and then into British Columbia. He visited the Comstock mines of Nevada in their prime. He first noted the extent and significance of the great Columbia lava flood that stretches down into northern California. He developed and perfected his theory of mountain formation, and worked out a number of important problems in California geology. Perhaps our greatest interest attaches to his studies in the origin of metalliferous veins. His visits to Virginia City, Nev., to the California gold veins and auriferous gravel deposits, and, most of all, to the sulphur banks, California, and Steamboat Springs, Nev., where traces of cinnabar (and, in the latter, also gold, silver, and copper) were still being deposited, stimulated his interest to the highest pitch.

The world is certainly indebted to him for his Elements of Geology, which presents the subject, stripped of every needless technicality, so as to make it interesting to every intelligent reader. I do not know a book in any language which so clearly opens the delights of the science he loved best to the beginner; and anyone who has imbibed its spirit has drawn a lesson from the book of nature which will always give to life new meaning and interest.

He was much interested in the remarkable fossil footprints that had been discovered in some sandstone beds. Dr. Harkness and others had claimed that some of these had been made by prehistoric men. Professor Le Conte examined them with Dr. Harkness and several others, and each wrote a paper, Dr. Harkness arguing in favor of the human origin, and Dr. Le Conte against it. It is needless to add that the latter view is now accepted. The following interesting observations were made at this time by Professor Le Conte concerning the convicts who were employed in blasting out fresh exposures in the formation:

> While here my observations on criminals interested me greatly. They enjoyed the work and the investigation immensely and very intelligently. We were all working together, and all intensely interested together. We entirely forgot that they were criminals, and some of them murderers. We were all simply fellowmen, and for the time companions. For all we could see they were much like average men, neither better nor worse. The effect of the work sentiment on them was wonderful. Before sullen and dull, now bright, eager, cheerful and happy. What a reformatory measure such work would be if it could be continued indefinitely.

But it is probably as a teacher of the new gospel of evolution that Professor Le Conte will be best remembered. He was not one of the first to accept it. As a disciple of Agassiz, who never accepted it, he at first was strongly opposed to it; but the more he studied it, the more he attempted to explain it to his students, the more its importance was forced upon him. His strong religious nature made him weigh it in the balance, lest it might contain some flaw or unhappily undermine the religious faith of some tender youth. Of his famous book on evolution he says:

> Its success exceeded my utmost expectation. The intelligent public seemed to have been waiting for such a book, especially the third part, viz: The Relation of Evolution to Religious Thought. Since its publication I have received letters from clergymen personally unknown to me, and of every denomination, thanking me for the boldness and yet the temperateness of the book. I have also received letters—30 or 40—from young men personally unknown to me—young men of high intelligence, many of them scientific—from all parts of the Umted States, thanking me for a book which had saved them from rank materialism. I have also received letters from England, France, and Italy, from men of the highest

distinction. There can be no doubt that the book was timely and has done much good.

It would be out of place for me to make a critical estimate of his work, even if I felt equal to the task, but I give instead his own modest estimate of it, as furnished in his autobiography, which is certainly an underestimate.

Now, looking back over a long life of incessant activity, what have I done of value to the world? What have I added to human thought? What influence for good may I hope to leave behind?

I. In science. To touch only on the most important points:

(*a*) My paper in 1859 On Correlation of Vital and Physical Forces, I think, gave both impulse and greater definiteness to scientific thought on that subject. Carpenter, in the last edition of his physiology, gives me credit for distinct advance on this subject.

(*b*) My researches on the phenomenon of binocular vision, I am sure, did clear up the thought in this field. I claim, and have been generally accorded, the credit of several original thoughts which have remained the permanent possessions of science: (1) Demonstration of the real nature of the Horopter. (2) Demonstration of the true theory of binocular perspective. (3) Demonstration of certain fundamental psychical phenomena in binocular vision, and a new mode of diagrammatic representation based thereon. These phenomena had been observed by some, but not understood. Their explanation had been hinted at by others, but never clearly brought out before. (4) Certain peculiarities of phantom planes not explained before.

(*c*) In geology, I believe some real substantial advance in science was made in my series of papers: (1) On the Structure and Origin of Mountain Ranges. (2) On the Genesis of Metalliferous Veins. (3) Especially those on the Critical Periods in the History of the Earth. (4) The demonstration of the Ozarkian, or, better, the Sierran, epoch as one of great importance in the history of the earth. I might mention several others that I believe are of prime importance, but I am willing to stand by these.

(*d*) In biology, my views on glycogeny, although not yet certain, have undoubtedly contributed to clearness of scientific thought on that important subject.

II. In philosophy. I look back with especial pleasure on my writings on evolution. I lay no claim to the discovery of new facts bearing on the theory of evolution, but only to have cleared up the nature and scope of evolution, and especially to have shown its true relation to religious thought. It is well to stop a moment to show the different rôles of different thinkers on the advance of this subject. Leaving out of account mere vague philosophic speculations like those of ancient philosophers, and those of Swedenborg in modern times, I would say that the rôle of Lamarck was to introduce evolution as a scientific theory. The rôle of Darwin was to present the theory in such wise as to make it acceptable to, and accepted by the scientific mind. The rôle of Huxley was to fight the battles of evolution, and to win its acceptance by the intelligent popular mind. It was the rôle of Spencer to generalize it into a universal law of nature, thereby making it a philosophy as well as a scientific theory. Finally, it was left to American thinkers to show that a materialistic implication is wholly unwarranted—that it is entirely consistent with a rational theism, and with other fundamental religious beliefs. My own work has been chiefly in this direction.

If one were asked to characterize his activities in a single sentence, it could be best done in his own words:

The domains of science and philosophy are not separated by hard and fast lines; they largely overlap. It is in this border land that I love to dwell.

Perhaps one of the most interesting of Professor Le Conte's addresses was the one he delivered before the Philosophical Union of the University of California, at its public annual meeting in 1895. The address of the evening had been on the theme The Conception of God, by Prof. Josiah Royce, of Harvard University. In the course of the discussion Professor Le Conte said:

I can only admire, not criticise, the subtle method of Professor Royce in reaching the conclusion of the personal existence of God. I have my own way of reaching the same conclusion; but, in comparison, it is a rough-and-ready way. His is from the point of view of the philosopher; mine from that of the scientist. I am not saying that his is not the best and the most satisfactory, but only that

it is a different way. He has given you his; I now give you, very briefly, mine—as I have been accustomed to give it:

Suppose, then, I could remove the brain cap of one of you and expose the brain in active work, as it doubtless is at this moment. Suppose, further, that my senses were absolutely perfect, so that I could see everything that was going on there. What would I see? Only decompositions and recompositions, molecular agitations and vibrations; in a word, physical phenomena, and nothing else. There is absolutely nothing else to see. But you, the subject of this experiment, what do you perceive? You see nothing of this; you perceive an entirely different set of phenomena, namely, consciousness—thought, emotion, will, psychical phenomena; in a word, a self, a person. From the outside we see only a physical form, from the inside only psychical phenomena.

Now, take external nature—the cosmos—instead of the brain. The observer from the outside sees, and can see, only physical phenomena; there is absolutely nothing else there to see. But must there not be in this case also, on the other side, psychical phenomena—consciousness, thought, emotion, will; in a word, a self, a person? There is only one place in the whole world where we can get behind physical phenomena—behind the veil of matter—namely, in our own brain, and we find there a self, a person. Is it not reasonable to think that if we could get behind the veil of nature, we should find the same, that is, a person? But, if so, we must conclude an Infinite Person, and therefore the only complete personality that exists. Perfect personality is not only self-conscious but self-existent. Our personalities are self-conscious, indeed, but not self-existent. They are only imperfect images and, as it were, separated fragments of the Infinite Personality, God.

He went on to agree with the explanation given by Professor Royce as to the necessity for moral evil in the world—that it would be impossible for a moral being to exist without freedom to choose between right or wrong—and continued:

As already said, then, I believe Professor Royce gives a true answer so far as moral evil is concerned, although he misses the emphasis which evolution gives that view. But other evil—physical evil—he gives up, in his book, in despair. And yet, from the point of view of evolution, this is exactly the form of evil that is most explicable. For as moral evil is a necessity for a progressive moral being, just so, and far more obviously, is physical evil a necessity for a progressive rational being. As one form of evil is closely connected with our moral nature, so is the other indissolubly connected with our intellectual nature. Let me explain: The necessary condition of any evolution is a struggle with an apparently inimical environment. For example, the end and goal, the significance, the only raison d'être, of organic evolution in general is the achievement of a rational being—man. The necessary condition of that achievement was the struggle with what seemed at every stage an inimical—i. e., evil—environment. But looking back over the course in the light of its glorious result—the achievement of man—we at once see that what seemed evil is really good. Now, it is equally the same with human evolution in relation to physical evil. The goal and end, the raison d'être, of social progress is the achievement of the ideal man, both in knowledge and character. But the attainment of perfect knowledge is impossible except in the presence of what seems at every state an evil environment, and by conflict with it. But evidently such an environment is evil only through ignorance of the laws of nature. Evil is therefore the necessary spur that goads us on to increase of knowledge. We are but foolish little children at school. Nature, our schoolmistress, chastises us relentlessly until we get our lessons. It is quite evident that without this scourge of evil humanity would never have emerged out of animality, or, having emerged, would never have emerged beyond the lowest stages. It is also evident that perfect knowledge of the laws of nature would remove every physical evil. Looking back over the course, then, from the elevated plane of perfect knowledge, and perceiving that the attainment of that plane was conditioned on the existence of evil—on punishment for ignorance—shall we any longer call it evil? Is it not good in disguise?

But it may be answered, "Yes, this is all true, if we accept evolution by struggle as a necessary process; but why may not that same result have been attained in some less expensive and distressing way?" I answer, because, as already seen, no other process is conceivable that would result in a moral being; and the achievement of such a being is the purpose of all evolution. One law, one process, one meaning and purpose, runs through all evolution, and that purpose is only revealed at the end. As, in biology, the laws of form and structure are best studied in the lowest organisms, where these are simplest, but those of function are studied

best in the highest organisms, because only there clearly expressed, just so the laws of process in evolution are best understood in its lower and simpler stages; but the end, the purpose and meaning of the whole process from the beginning, is not fully declared until the end. That end is the achievement of a moral being; a moral being without struggle with evil is impossible because a contradiction in terms; and the same law must run throughout. * * *

The effect produced by this remarkable address was very powerful. It could not be said to be a demonstration in the strictly logical sense, but those who heard him felt that he had reached out into the outer twilight, beyond the daylight of reason, and had grasped something more than a shadow. His characteristic power to produce this effect, in handling a difficult subject, was, no doubt, due to his genius for reasoning by analogy. This is commonly admitted to be one of the most dangerous methods of reasoning. But this has always seemed to me to be only another way of saying that only a man of genius is able to discover the true analogy among the thousand seeming analogies that trap the ordinary mortal. Many of the greatest of scientific discoveries have been made by discovering true analogies, even when it was afterwards necessary to corroborate them by the logic of mathematics. It was in this method of reasoning by analogy that Professor Le Conte was strongest. His long habit of comparative study in zoology, botany, and geology had educated a faculty naturally very strong in him to the highest state of efficiency. And the skill with which he used it aroused the admiration of all who heard him. It enabled him to bring out the common ideas in apparently conflicting theories and to show that these conflicting views were often only partial views of the same truth which could be wholly grasped only by combining them. No one could be associated with him in the class room without being ever afterwards conscious of a wider and a more generous outlook.

ADDRESSES DELIVERED AT THE JOHNS HOPKINS UNIVERSITY CELEBRATION.

[The celebration of the twenty-fifth anniversary of the founding of Johns Hopkins University and the inauguration of Ira Remsen, LL. D., as president of the university took place February 22 and 23, 1902. In view of the concurrence of the two events mentioned, the occasion was made more than usually imposing. The large number of delegates that attended, representing the principal institutions of learning in the United States and Canada, testified to the deep and widespread interest felt in the proceedings. The following extracts from the addresses delivered on the occasion are here reprinted.]

[From the address of President Emeritus DANIEL C. GILMAN.]

* * * As religion, the relation of the finite man to the Infinite, is the most important of all human concerns, I begin by a brief reference to the attitude of universities toward faith and knowledge. The earliest universities of Europe were either founded by the church or by the state. Whatever their origin, they were under the control, to a large extent, of ecclesiastical authorities. These traditions came to our country, and the original colleges were founded by learned and godly men, most of them, if not all, ministers of the gospel. Later came the State universities, and later still the private foundations like that in which we are concerned. Gradually, among the Protestants, laymen have come to hold the chief positions of authority formerly held by the clergy. The official control, however, is less interesting at this moment than the attitude of universities toward the advancement of knowledge. To-day, happily, apprehensions are not felt to any great extent respecting the advancement of science. It is more and more clearly seen that the interpretation of the laws by which the universe is governed, extending from the invisible rays of the celestial world to the most minute mani-

festations of organic life, reveal one plan, one purpose, one supreme sovereignty—far transcending the highest conceptions to which the human mind can attain respecting this sovereign and Infinite Power. Sectarian supremacy and theological differences have dwindled therefore to insignificance in institutions where the supreme desire is to understand the world in which we are placed and to develop the ablest intellects of each generation, subservient to the primeval injunction, "Replenish the earth and subdue it; and have dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth." Notwithstanding these words, the new biology—that is, the study of living creatures—encountered peculiar prejudices and opposition. It was the old story over again. Geology, early in the century, had been violently attacked; astronomy, in previous centuries, met its bitter opponents; higher criticism is now dreaded. Yet quickly and patiently the investigator has prosecuted and will continue his search for the truth, heedless of consequences, assured by the Master's words—"the truth shall make you free."

Still the work goes on. Science is recognized as the handmaid of religion. Evolution is regarded by many theologians as confirming the strictest doctrines of predestination. The propositions which were so objectionable thirty years ago are now received with as little alarm as the propositions of Euclid. There are mathematicians who do not regard the Euclidean geometry as the best mode of presenting certain mathematical truths, and there are also naturalists who will not accept the doctrines of Darwin, without limitation or modification, but nobody thinks of fighting over the utterances of either of these philosophers. In fact, I think it one of the most encouraging signs of our times that devout men, devoted to scientific study, see no conflict between their religious faith and their scientific knowledge. Is it not true that, as the realm of Knowledge extends the reign of Faith, though restricted, remains? Is it not true that Science to-day is as far from demonstrating certain great propositions, which in the depths of our souls we all believe, as it was in the days of the Greek philosophers? This university, at the outset, assumed the position of a fearless and determined investigator of nature. It carried on its work with quiet, reverent, and unobtrusive recognition of the immanence of divine power—of the Majesty, Dominion, and Might, known to men by many names, revered by us in the words that we learned from our mothers' lips, Almighty God, the Father Everlasting.

Another danger, thirty years ago, was that of conflict between the advocates of classical and scientific study. For many centuries Greek and Latin were supreme in the faculty of liberal arts, enforced and strengthened by metaphysics and mathematics. During the last half century, physical and natural sciences have claimed an equal rank. The promotion has not been yielded without a struggle, but it is pleasant to remember that in this place no conflict has arisen. Among us, one degree, that of Bachelor of Arts, is given alike to the students of the Humanities and the students of Nature, and the degree of Doctor of Philosophy may be won by advanced work in the most remote languages of the past or in the most recent developments of biology and physics. Two illustrious teachers were the oldest members of the original faculty—one of them universally recognized as among the foremost geometricians of the world, the other renowned for his acquaintance with the masters of thought in many tongues, and especially for his appreciation of the writers of ancient Greece, upon whose example all modern literature is based.

Our fathers spoke of "church and state," and we but repeat their ideas when we say that universities are the promoters of pure religion and wise government. This university has not been identified with political partisanship—though its members, like all patriots, have held and expressed their opinions upon current questions, local and national. Never have the political views of any teacher helped or hindered

his preferment, nor have I any idea what would be the result of the party classification of our staff. This, however, may be claimed. The study of politics, in the sense of Freeman, "History is past politics and politics present history," has been diligently promoted. The principles of Roman law, international arbitration, jurisprudence, economics, and institutional history have here been set forth and inculcated, so that in every part of the land we can point to our graduates as the wise interpreters of political history, the strong promoters of democratic institutions, the firm believers in the merit system of appointments and in local self-government.

A phrase which has lately been in vogue is original research. Like all other new terms, it is often misapplied, often misunderstood. It may be the highest occupation of the human mind. It may be the most insignificant. A few words may therefore be requisite to explain our acceptance of this word. When this university began, it was a common complaint, still uttered in many places, that the ablest teachers were absorbed in routine and were forced to spend their strength in the discipline of tyros, so that they had no time for carrying forward their studies or for adding to human knowledge. Here the position was taken at the outset that the chief professors should have ample time to carry on the higher work for which they had shown themselves qualified, and also that younger men, as they gave evidence of uncommon qualities, should likewise be encouraged to devote themselves to study. Even those who were candidates for degrees were taught what was meant by profitable investigation. They were shown how to discover the limits of the known; how to extend, even by minute accretions, the realm of knowledge; how to cooperate with other men in the prosecution of inquiry, and how to record, in exact language and on the printed page, the results attained. Investigation has thus been among us the duty of every leading professor, and he has been the guide and inspirer of fellows and pupils, whose work may not bear his name, but whose results are truly products of the inspiration and guidance which he has freely bestowed.

The complaint was often heard in the early seventies that no provision was made in this country for post-graduate work except in the three professional schools. Accordingly, a system of fellowships, of scholarships, and of other provisions for advanced study was established here, so well adapted to the wants of the country at that time that its provisions have been widely copied in other places. It now seems as if there was danger of rivalry in the solicitation of students, which is certainly unworthy, and there is danger also that too many men will receive stipendiary encouragement to prepare themselves for positions they can never attain. In the early days of the French Academy, when a seat in that body was a very great prize, a certain young man was told to wait until he was older, and the remark was added that in order to secure good speed from horses a basket of oats should always be tied to the front of the carriage pole as a constant incitement. It would indeed be a misfortune if a system of fellowships should be open to this objection. Nevertheless, whoever scans our register of Fellows will discover that many of the ablest men in the country of the younger generation have here received encouragement and aid.

When this university began, the opportunities for scientific publication in this country were very meager. The American Journal of Science was the chief repository for short and current papers. The memoirs of a few learned societies came out at slow intervals and could not be freely opened to investigators. This university in the face of obvious objection determined to establish certain journals which might be the means of communication between the scholars of this country and those abroad. Three journals were soon commenced: The American Journal of Mathematics; the American Journal of Philology; the American Chemical Journal. Remember that these were "American" journals in fact as well as in name, open to all the scholars of the country. Other periodicals came afterwards,

devoted to history and politics, to biology, to modern languages, to experimental medicine, and to anatomy. Moderate appropriations were made to foreign journals of great importance which lacked support, the English Journal of Physiology and the German Journal of Assyriology. Nor were the appropriations of the trustees restricted to periodical literature. Generous encouragement was given to the publication of important treatises, like the researches of Dr. Brooks upon salpa; to the physiological papers of Dr. Martin; to the studies in logic of Mr. Peirce and his followers; to Professor Rowland's magnificent photographs of the solar spectrum; to the printing of a facsimile of the earliest Christian document after the times of the Apostles; and recently, with the cooperation of the University of Tübingen, to the exact reproduction by Dr. Bloomfield of a unique manuscript which has an important bearing upon comparative philology.

I am not without apprehensions that our example to the country has been infelicitous, not less than thirty institutions being known to me which are now engaged in the work of publication. The consequence is that it is almost impossible for scholars to find out and make use of many important memoirs, which are thus hidden away. One of the problems for the next generation to solve is the proper mode of encouraging the publication of scientific treatises.

I can not enumerate the works of scholarship which have been published without the aid of the university by those connected with it—studies in Greek syntax, in mathematics, in history, in chemistry, in medicine and surgery, in economics, in pathology, and in many other branches. The administration now closing can have no monument more enduring than the great mass of contributions to knowledge, which are gathered like the cairn of bowlders and pebbles which commemorates in Cracow the burial place of Kosciusko, a bibliothecal cairn, in the office of the trustees, to remind every officer and every visitor of our productivity in science and letters.

There are many who believe that the noblest work in which we have engaged is the advancement of medical education and science. Several agencies have been favorable. The munificence of the founder established a hospital which was recognized as soon as it was opened as the foremost of its kind in Christendom. He directed that when completed it should be a part of the university, and, accordingly, when the time came for organizing a medical and surgical staff the principal professors were simultaneously appointed to the chairs of one institution, to the clinics of the other. They were to be constantly exercised in the relief of suffering and in the education of youth. For the lack of the requisite funds the university at first provided only for instruction in those scientific branches which underlie the science of medicine. At length the organization of the school of medicine was made possible by a very large gift of money received from a lady of Baltimore who was familiar with the requirements of medical science, and eager to see that they were met. By her munificence the university was enabled to organize and maintain that great department which now reflects so much honor upon this city, and which does so much by example, by publication, by systematic instruction, and by investigation to carry forward those varied sciences, anatomy, physiology, physiological chemistry, pharmacy, pathology, and the various branches of medicine and surgery. In accordance with the plans of the university the generous donor made it a condition of her gift that candidates for the degree of doctor of medicine should be those only who had taken a baccalaureate degree based upon a prolonged study of science and the modern languages.

A four years' course of study was also prescribed and women were admitted to the classes upon the same terms as men. The liberal and antecedent aid of women throughout the country in the promotion of these plans is commemorated by a building inscribed "The women's fund memorial building." The excellent laboratory facilities, the clinical opportunities, the organization of a training

school for nurses, and especially the ability of the physicians and surgeons, have excited abundant emulation and imitation in other parts of the country—a wonderful gain to humanity. It is more and more apparent among us that a medical school should be a part of a university and closely affiliated with a hospital. It is also obvious that the right kind of preliminary training should be antecedent to medical studies.

I must ask the indulgence of our friends from a distance as I now dwell for a moment on the efforts which have been made to identify the Johns Hopkins University with the welfare of the city of Baltimore and the State of Maryland. Such a hospital and such medical advisers as I have referred to are not the only benefits of our foundation. The journals which carry the name of Baltimore to every learned society in the world are a minor but serviceable advantage. The promotion of sanitary reform is noteworthy, the study of taxation and in general of municipal conditions, the purification of the local supply of water, the advancement of public education by courses of instruction offered to teachers, diligent attention to the duties of charity and philanthropy, these are among the services which the faculty have rendered to the city of their homes. Their efforts are not restricted to the city. A prolonged scientific study of the oyster, its life history, and the influences which help or hinder its production, is a valuable contribution. The establishment of a meteorological service throughout the State in connection with the Weather Bureau of the United States is also important. Not less so is the geological survey of Maryland, organized with the cooperation of the United States Geological Survey to promote a knowledge of the physical resources of the State, exact maps, the improvement of highways, and the study of water supplies, of conditions favorable to agriculture, and of deposits of mineral wealth within this region. To the efficiency of these agencies it is no doubt due that the State of Maryland has twice contributed to the general fund of the university.

Nor have our studies been merely local. The biological laboratory, the first establishment of its kind in this country, has carried forward for many years the study of marine life at various points on the Atlantic and has published many important memoirs, while it has trained many able investigators now at work in every part of the land. Experimental psychology was here introduced. Bacteriology early found a home among us. The contributions to chemistry have been numerous and important. Here was the cradle of saccharine, that widely diffused and invaluable concentration of sweetness, whose manufacturers unfortunately do not acknowledge the source to which it is due. In the physical laboratory light has been thrown upon three fundamental subjects—the mechanical equivalent of heat, the exact value of the standard ohm, and the elucidation of the nature of the solar spectrum. For many years this place was the chief seat in this country for pure and advanced mathematics. The study of languages and literature, oriental, classical, and modern, has been assiduously promoted. Where has the Bible received more attention than is given to it in our Semitic department? Where the study of ancient civilization in Mesopotamia, Egypt, and Palestine? Where did the Romance languages in their philological aspect first receive attention? To American and institutional history persistent study has been given. Of noteworthy significance also are the theses required of those who are admitted to the degree of Doctor of Philosophy, which must be printed before the candidate is entitled to all the honors of the degree. * * *

[From the address of President Harper, of the University of Chicago.]

We are celebrating, in these days, not only the twenty-fifth anniversary of the Johns Hopkins University, the completion of a quarter of a century of magnificent work by a great university—we are celebrating also the close of the first period of university education in these United States.

During this first period the university idea has been introduced and established. Nor does the time within which this has taken place date far back. There were no universities in this country before the war. There were, in fact, no large colleges. But within thirty years institutions have come into existence, possessing not only the name but the character of universities, and old institutions have changed not only their character but their names. In other words, the university idea has, beyond question, established itself upon a strong foundation.

(2) The first period has seen the substantial beginning of a differentiation between the college and the university. Some universities, which include also college work, are drawing a sharp line between the two. Some colleges are recognizing the fact that their future usefulness depends upon their remaining colleges, rather than upon making an effort to become universities. There are still some institutions in which this distinction is not appreciated; that is, institutions in which the college work is conducted as if it were a kind of university work, or in which the university work is conducted as if it were still work of a college character. But the separation is proceeding as rapidly as could be expected, perhaps even more rapidly than could be desired, and it is a change full of significance for the future of university education.

(3) This first period has seen a remarkable growth in the recognition given the work of research and investigation. The professor of former times had little or no opportunity for any work aside from teaching. It is undoubtedly true that in most of our institutions too much lecture work is still required of certain men who have shown special skill in research. But how different is the situation to-day in comparison with that of thirty years ago. William Dwight Whitney, if he were living to-day, would not be compelled to teach French and German to engineering students in order to eke out a livelihood.

The spirit of research, once hardly recognized in our higher educational work, is now the controlling spirit, and opportunities for its cultivation abound on every side.

(4) In its very last days this first period has seen tangible evidence that a new period, a second period, is being ushered in; for what other interpretation than this may be suggested for the remarkable things that have recently taken place? With the many millions of dollars given directly for research and higher education; with the new foundations which have recently come into being on the Atlantic coast, in the Mississippi Valley, and on the Pacific coast; with the results already obtained in the several lines of research and investigation by university men whose names have become famous for the work they have accomplished; with the maturity that comes from many years devoted to the highest educational ideals, as witnessed by the splendid history of this university, surely there is reason to believe that in the East, in the West, and in the Far West we are preparing to enter upon a new period in the development of university education.

That this is a common belief, it seems to me, is shown by the fact that within two years the leading universities in the country—fourteen in number—have joined themselves as institutions in an association for the study and consideration of problems which concern university as distinguished from college work.

It would be interesting, if one had time and ability to perform the task acceptably, to consider in a prophetic way what perhaps this new period on which we now enter will produce. Perhaps I may be allowed a sentence or two.

(1) It will see still greater development. Up to this time we have known what could be done by a university with an annual expenditure of $1,000,000 or so. In this next period there will be institutions which will have $10,000,000 with which to conduct a year's work. This will mean not merely growth, but in a large measure reorganization; at all events, organization on new lines.

(2) The new period will see still greater differentation; the higher work of the

university will be separated more clearly from the lower work of the college; many colleges will undertake to do work of a more distinctly college character than that which they are now doing, and many high schools will rise to the grade and dignity of colleges. But further, institutions will distribute the work of higher education, some undertaking work in one group of departments, some work in another group. Only a few institutions will endeavor to cover the entire ground. The principle of specialization will be applied to institutions.

(3) In the new period the United States will receive proper recognition for university work, and, while American students, it is hoped, will always find it advantageous to visit Europe, the time is near at hand when the students of European countries will take up residence in our American universities.

(4) The new period will see an intermingling of university work and university ideals in all the various activities of our national life; in the business world, in the political world, and in the literary world. The old idea of separation from the world at large is fast disappearing, and the new day has already dawned in which the university is to do notable work in fields hitherto almost unknown and by methods hitherto almost untried.

In all this change which has come about in thirty years the Johns Hopkins University has been the principal factor. The ideals of its founders, the contributions of its professors, and the work of its alumni have constituted the principal agency which has brought about this wonderful growth.

During the first period the Johns Hopkins University has been the most conspicuous figure in the American university world, and to its achievements we are largely indebted for the fact that we may now enter upon a higher mission. * * *

[From the inaugural address of President REMSEN.]

* * * The American university as distinguished from the college is a comparatively recent product of evolution or of creation. Being young, its character is not fully developed, and we can only speculate in regard to its future. On an occasion of this kind, when one of the young universities of the country is celebrating in a quiet way the twenty-fifth anniversary of its foundation, and when a new presiding officer makes his first appearance before a large assembly, it seems fitting that he upon whom has been placed the responsibility of guiding for the present the affairs of the university should take the opportunity thus afforded of giving expression to a few thoughts that suggest themselves when one begins to reflect upon the significance of the university movement in this country. Every one at all acquainted with educational matters knows that the differentiation of the university from the college is the most characteristic fact in the history of higher education during the past quarter century. It is well that we should ask ourselves, What does this tendency mean? Whither is the movement likely to carry us?

While from the beginning the authorities of the Johns Hopkins University have maintained a collegiate department as well as a graduate or university department, and have endeavored to make this as efficient as possible under existing circumstances, the subjects that present themselves in connection with this branch of our work are so familiar and have been so much discussed that I can pass over them now without danger of giving the impression that we consider these subjects of less importance than those more directly connected with the work of the university. At all events, in what I shall have to say I propose to confine myself to the latter.

The idea that a student who has completed a college course has something yet to learn, if he chooses the career of a teacher or scholar, does not appear until quite recently to have taken strong hold of the minds of those who had charge of the educational interests of our country. Perhaps it would be better to put it in

this way: They do not appear to have thought it worth while to make provision in the system for those who wanted more than the college gave. The college has for its object the important work of training students for the duties of citizenship, not primarily the duties of scholarship; and no one doubts that in the main they have done their work well. Nor does anyone doubt that whatever may come the college has a leading part to play in this country. Collegiate work by its very nature necessarily appeals to a much larger number than university work. But college work requires no apologist nor defender. It appeals strongly to the American people, and it is well that it is so. The college is in no danger of annihilation, though the indications are that it will undergo important modifications in the future as it has in the past. Upon this subject much might be said, and I feel strongly tempted to enlarge upon it, notwithstanding the intention already expressed of confining myself to problems more directly connected with the university proper.

There is, however, one phase of the college problem that is so closely connected with that of the university that I can not avoid some reference to it. There is a marked and rapidly growing tendency to make college work the basis of the work in professional schools. As is well known, some of our medical schools now require a college degree for admission. The average age of graduation from our leading colleges is so high that the students can not begin their professional courses until they are from 22 to 23 years of age on the average. Then, too, the length of the professional courses is greater than it formerly was, so that some of the best years of life are taken up in preparatory work. One thing seems to admit of no denial, and that is that in so far as it prevents students from beginning their professional studies or their work in business life until they have attained the age of 22 or 23 our present system is seriously defective. The defect is one that must be remedied. Various efforts are now being made looking to improvement, but it is not yet clear how the problem will be solved.

In this country the name university in the new sense is frequently applied to one department, and that is the philosophical department. This has to deal with philology, philosophy, history, economics, mathematics, physics, geology, chemistry, etc.; in short, it comprises all branches that do not form an essential part of the work of the departments of medicine, law, and theology. A fully developed university, to be sure, includes at least four departments—the medical, the legal, the theological, and the philosophical; or, in other words, the university faculty comprises faculties of medicine, of law, of theology, and of philosophy.

The new thing in educational work in this country is the philosophical faculty of our universities.

This meets the needs of those students who, having completed the college course, and having, therefore, had a good general training that fits them for more advanced study, wish to go forward in the paths of learning, and, so far as this may be possible, to become masters of some special branch. Most of these students are preparing to teach in colleges and elsewhere, so that the philosophical department of the university is to-day a professional school just as much as the medical or legal department. On the completion of the college course the student holds the same relation to the philosophical department of the university as to the other departments or to the professional schools; and the age question is fully as important in the case of the student in the philosophical faculty as in the case of those who are to enter the professional schools. Now, if it be conceded that the training of specialists—not necessarily narrow specialists, but necessarily those who are thoroughly grounded in some one subject—I say, if it be conceded that the training of specialists is essential to the growth of the highest scholarship, then by advancing the age of graduation from our colleges we are interfering with the development of scholarship in the highest sense, because the greater

the age of graduation from the colleges the less will these graduates be inclined, or be able, to take up the advanced work that is essential to convert them into scholars. But let me close what I have to say on the subject by the safe prediction that the time will come when the work of our colleges will be adjusted to the work of the various faculties of the university, so that the passage from the one to the other will not involve something unnatural—either hardship to the student, or a telescoping of college and university, which now, on the whole, furnishes the best way out of the existing difficulty.

I have said that the new thing in educational work in this country is the philosophical faculty of our universities. The growth of the work of the philosophical faculty has, however, undoubtedly influenced that of the other faculties, more particularly the medical. Gradually the medical schools—those connected with the universities, at least—are adopting university standards. The same is true to some extent of schools of law and of theology. So that I think it is safe to assert that the great activity that has characterized the work of the philosophical faculties of our universities has tended in no small measure to the improvement of the work of our professional schools. It has lifted them to a higher level, and that is a result that the world at large may congratulate itself upon.

One of the most remarkable facts in connection with what we may call the development of the university idea in this country is the surprisingly rapid increase in the attendance upon the courses offered by our philosophical faculties during the last few years. In what I shall have to say I shall for the present use the term "graduate student" in the restricted sense which it has come to have, meaning a college graduate who is following courses offered by the philosophical faculty of some university, and excluding, therefore, those who are studying medicine, or law, or theology in universities.

I have recently asked the United States Commissioner of Education to help me answer the following questions:

1. How many graduate students were in the United States in the year 1850?
2. How many in 1875?
3. How many in 1900?

The answers are these:

1. In 1850 there were 8 graduate students in all of the colleges of the country. Of these 3 were enrolled at Harvard, 3 at Yale, 1 at the University of Virginia, and 1 at Trinity College.
2. In 1875 the number had increased to 399.
3. In 1900 the number enrolled was 5,668.

At present the number can not be far from 6,000.

In order that these facts may be properly interpreted we should know how many Americans are studying in foreign universities. The records show that in 1835 there were four American students in the philosophical faculties of German universities; in 1860 there were 77; in 1880, 173; in 1891, 446; in 1892, 383; in 1895, 422; and in 1898, 397.

These figures show clearly that the increase in the attendance at American universities is not accounted for by a falling off in attendance at German universities. On the other hand, they do show that for the last ten years at least there has been no increase in the attendance at German universities, but rather a slight decrease.

Six thousand students are, then, to-day pursuing advanced courses in our American universities, while not longer ago than 1875 the number was only about 400. In this connection it must further be borne in mind that during this period the colleges have not relaxed in their requirements. The tendency has been in the opposite direction. So that it means to-day more rather than less than it did in 1875 to be a graduate student. That there is an increasing demand for uni-

versity work is clear, and it seems to be destined to play a more and more important part in the development of our educational methods.

Now, what is the cause of the rapid increase in the demand for university work or the rapid increase in the attendance upon university courses? No simple answer would be correct. Probably the principal direct cause is the increased demand on the part of the colleges, and to some extent of the high schools, for teachers who have had university training. The degree of doctor of philosophy being the outward and visible sign of such training, many colleges have virtually taken the ground that none but Ph. D.'s need apply. This would, of course, tend directly to increase the attendance at the universities. Operating in the same way is the multiplication of chairs in the colleges. While not long ago one man often taught a number of subjects, sometimes related, sometimes not, the college authorities are coming more and more to intrust a single subject to a single man. The old-fashioned professor who would teach any subject in the curriculum with equal success is a thing of the past except in a few remote regions. The university-trained man has largely taken his place, and the universities are spreading their influence into the nooks and corners of the country through these men.

I need not discuss this phase of the subject further. It will, I am sure, be acknowledged without argument that it is desirable that our college faculties should be made up of men who have enjoyed the best educational advantages. In supplying such men the universities are doing a work of the highest value for the country. If nothing else were accomplished by our universities they would be worthy of all the support they get. The results of their work in this direction are not as tangible as that of the work of the colleges, for the latter reach much larger numbers and in ways that can be more easily followed. But, if we keep in mind the fact that the college is dependent upon the university for its faculty and that the character of the college is in turn dependent upon the character of its faculty, it will be seen that whatever good may come from the college is to be traced directly to work done by the universities. In order to keep our colleges up to a high standard it is absolutely necessary that our universities should be maintained on a high plane. This university work is not something apart, independent of other kinds of educational work. It is a necessary part of the system. It affects not only our colleges, but our schools of all grades, and must, therefore, have a profound influence upon the intellectual condition of the whole country. It is difficult, perhaps, to prove this, but it seems to me that the statements just made are almost self-evident truths.

But the universities are also doing another kind of work of importance to the country. Through their specially prepared men they are doing something to enlarge the bounds of knowledge. To be sure, such work is also being done to some extent in our colleges and elsewhere, but the true home of the investigator is the university. This work of investigation is as important as the work of training men. What does it mean? All persons with healthy minds appear to agree that the world is advancing and improving. We see evidences of this on every side. Those results that appeal most strongly to most of us are, perhaps, the practical discoveries that contribute so much to the health and comfort of mankind. These are so familiar that they need not be recounted here. If great advances are being made in the field of electricity, in the field of medicine, in the field of applied chemistry, it is well to remember that the work that lies at the foundation of these advances has been done almost exclusively in the universities. It would be interesting to trace the history of some of these advances. We should find that in nearly every case the beginning can be found in some university workshop where an enthusiastic professor has spent his time prying into the secrets of nature. Rarely does the discoverer reap the tangible reward of his work—that is to say, he does not get rich—but what of it? He has his reward,

and it is at least a fair question whether his reward is not higher than any that could be computed in dollars and cents.

The material value to the world of the work carried on in the university laboratories can not be overestimated. New industries are constantly springing up on the basis of such work. A direct connection has been shown to exist between the industrial condition of a country and the attitude of the country toward university work. It is generally accepted that the principal reason why Germany occupies such a high position in certain branches of industry, especially those founded upon chemistry, is that the universities of Germany have fostered the work of investigation more than those of any other country. That great thinker and investigator, Liebig, succeeded during the last century in impressing upon the minds of his countrymen the importance of encouraging investigations in the universities, and since that time the German laboratories of chemistry have been the leaders of the world. In Germany the chemical industries have grown to immense, almost inconceivable, proportions. Meanwhile the corresponding industries of Great Britain have steadily declined. This subject has recently been discussed by Arthur C. Green in an address read before the British Association at its meeting at Glasgow last summer. The address has been republished in Science, volume 2, page 7, of 1902. I call the attention especially of our business men to this address. I think it will show them that university work in some lines at least is directly and closely connected with the industrial position of a country. Speaking of the coal-tar industry, the author of the paper referred to says:

> In no other industry have such extraordinarily rapid changes and gigantic developments taken place in so short a period—developments in which the scientific elucidation of abstract problems has gone hand in hand with inventive capacity, manufacturing skill, and commercial enterprise; in no other industry has the close and intimate interrelation of science and practice been more clearly demonstrated.

And further on:

> Again, besides the loss of material wealth which the neglect of the coal-tar trade has involved to this country, there is yet another aspect of the question which is even of more importance than the commercial one. There can be no doubt that the growth in Germany of a highly scientific industry of large and far-reaching proportion has reacted with beneficial effect upon the universities, and has tended to promote scientific thought throughout the land. By its demonstration of the practical importance of purely theoretic conceptions it has had a far-reaching effect on the intellectual life of the nation. How much such a scientific revival is wanted in our country the social and economical history of the past ten years abundantly testifies. For in the struggle for existence between nations the battle is no longer to the strong in arm, but to those who are the strongest in knowledge to turn the resources of nature to the best account.

What I want to make clear by these quotations and references is that universities are not luxuries, to be enjoyed or not, as we may please. They are necessities. Their work lies at the very foundation of national well-being.

But there is another aspect of university work of greater importance than that of which I have spoken. I mean the intellectual aspect in the highest sense. The world is advancing in other ways than along material lines. While, as I have pointed out, the material interests of the world are connected with the intellectual condition, there are thoughts, there are ideas, that are above material considerations, ideas pertaining to the history of mankind, to the origin and development of the universe, to the phenomena of life, to the development of thought, to the significance of religions. All these are of importance, and the character of a nation is determined by the extent to which these ideas are cultivated. There is call for investigation in every subject—in the various branches of philology, in history, in economics, in archæology, as well as in the natural sciences, and here again the universities furnish the workers and the workshops.

There are, then, deep-seated reasons for encouraging the work of our universities in every possible way. We can not afford to let them languish. The interests involved are too great. The more clearly this is recognized the better for us.

The rapid advances that have been made in university work in this country have brought us somewhat suddenly face to face with new educational problems, and we have not yet had time to adjust ourselves to the new situation thus created. We are in the experimental stage. We are trying to determine how we ought to deal with our graduate students in order to get the best results; how, in general, to make the work as efficient as possible.

As one who, with others, has been engaged for twenty-five years in studying the new problems and in attempting to solve them, I may be permitted to say a few words in regard to one of the most important problems that the universities have to deal with at present. I refer to the problem of the professors. Having been a professor for about thirty years, and having during that time known intimately many of those who belong to this class and worked with them, I feel that I may speak of the professor problem with some confidence.

The university is what the professors make it, and the president has no more important duty to perform than that of seeing that the various chairs are filled by the right kind of men. He should not take the full responsibility of selection. He should take all the good advice he can get. He is sure to have some that is bad. He should, however, not only take advice, but he should endeavor to determine for himself by every available means whether or not the persons recommended to him are worthy of appointment. He should not shirk this responsibility. A mistake in this line is almost as difficult to rectify as a mistake in the matrimonial line—perhaps more difficult. It is, therefore, doubly important that an appointment should be made with great deliberation and with a full realization of the gravity of the act. It is not, however, the process of appointing that I wish especially to speak of, though much that is interesting to university circles might be said on this subject. It is rather the principles that are involved. What constitutes a good professor? What kind of men are the universities looking for? Is the supply of this kind of men equal to the demand? These are some of the questions that suggest themselves in this connection. Let me attempt to answer them briefly.

The development of universities in this country has created a demand for a kind of professor somewhat different from that demanded by the college. It would not be difficult to describe the ideal university professor, but we should gain little in this way. I shall assume that he has the personal traits that are of such importance in those who are called upon to teach. A man of bad or questionable character, or of weak character, is no more fit to be a university professor than to be a college professor or a teacher in a school. That is self-evident. At least it seems so to me. Leaving these personal matters out of consideration, the first thing that is essential in a university professor is a thorough knowledge of the subject he teaches and of the methods of investigation applicable to that subject; the second is the ability to apply these methods to the enlargement of the field of knowledge; and the third is the ability to train others in the use of these methods. But a knowledge of the methods, the ability to apply them, and the ability to train others in their use will not suffice. The professor, if he is to do his duty, must actually be engaged in carrying on investigations both on his own account and with the cooperation of his most advanced students. This is fundamental. It may be said, and this can not be denied, that there is much research work done that is of little value to the world; that, in fact, much of that which is done by our graduate students is trivial, judged by high standards. It would be better, no doubt, if every professor and every advanced student were engaged upon some problem of great importance to the world. But this is out of the question in any

country. Few men possess that clearness of vision and that skill in devising methods, combined with the patience and power of persistent application, that enable them to give the world great results. If only those who can do great things were permitted to work, the advancement of knowledge would be slow indeed. The great is built upon the little. The modest toiler prepares the way for the great discoverer. A general without his officers and men would be helpless. So would the great thinker and skillful experimenter without the patient worker, "the hewer of wood and drawer of water."

Of so-called research work there are all grades. A man may reveal his intellectual power as well as his mental defects by his investigations. But it remains true that the university professor must be carrying on research work or he is failing to do what he ought to do. It is part of his stock in trade. He can not properly train his students without doing such work and without helping his students to do such work. One of the best results of carrying on this research work is the necessary adoption of world standards. A man may teach his classes year after year and gradually lose touch with others working in the same branch. Nothing is better calculated to keep him alive than the carrying on of a piece of work and the publication of the results in some well-known journal. This stimulates him to his best efforts, and it subjects him to the criticism of those who know. He may deceive his students and himself—no doubt he often does—but he can not deceive the world very long. The professor who does not show what he can do in the way of adding to the knowledge of the world is almost sure to become provincial when he gets away from the influence of his leaders.

Other things being equal, the professor who does the best work in his special branch is the best professor. The universities want leaders. Unfortunately, the number of these is quite limited, and it is not surprising that there are not enough to go around. It is becoming very difficult to find properly qualified men to fill vacant university professorships. Given sufficient inducements and it would be quite possible to "corner the market." There are at least half a dozen, probably more, universities in this country on the lookout for young men of unusual ability. They are snapped up with an avidity that is a clear sign of the state of the market. One of the greatest obstacles in the way of the advancement of our American universities to-day is a lack of enough good professional material. Fortunately, the universities are themselves providing the means by which this obstacle may be overcome, though not as rapidly as we should like. That is, however, not the fault of the universities. Some deeper cause is operating. Nature does not seem to supply enough raw material. It is often raw enough, to be sure, but its possibilities are limited.

This, too, suggests another question of deep import for the intellectual development of our country. Do our ablest men enter universities and engage in advanced work? This is a question which it is very difficult, if not quite impossible, to answer. I think it is not uncommonly assumed that they do not; that our ablest men, our best thinkers, are not in the universities. It is often said that they are in the law or in business. It may be. Certainly the great jurists and the great business men seem to be relatively more numerous than the great university teachers. I should not think it worth while to touch upon this subject were it not for the fact that recently the suggestion has been made that some of the men who become great in other lines might be induced to enter the academic career if only sufficient inducements were offered. The proposition is that a marked increase in the emoluments of professors would tend to attract some of the best material from other fields. I do not feel sure of this. In any case, the subject is hardly worth discussing. Whatever improvement is to come will come slowly, and this is fortunate. A sudden increase of the salaries of the leading professors of this country to, say, $10,000 or more, would not suddenly change the status of

these professors among their fellow-men, and, while the professors might be pleased, and probably would be, the main question is, Would this change have any effect in the desired direction? Speculation on this subject seems to me of no value. If it be true that the men of the best intellects do not find their way into university circles, it is safe to assume that this is due to a great many conditions, and that the conditions are improving. The intellectual standards of our colleges and universities are gradually being raised. We can not force matters.

The best thing we can do for our students is to give them good professors. Sumptuous laboratories, large collections of books and apparatus, and extensive museums are well enough. They are necessary, no doubt. But I fear they are too much emphasized before the public. A university is, or ought to be, a body of well-trained, intelligent, industrious, productive teachers of high character provided with the means of doing their best work for their students, and therefore for the world. * * *

ADDRESSES AT THE INSTALLATION OF PRESIDENT BUTLER, OF COLUMBIA UNIVERSITY.

[The installation of Nicholas Murray Butler, LL. D., as president of Columbia University took place April 19, 1902. The following extracts from the addresses delivered on that occasion are reprinted from the Supplement to the Columbia University Quarterly of June, 1902.]

[From the address by President ELIOT, of Harvard.]

The choice of president which the trustees of Columbia have made accords with the practice of the great majority of the larger American universities during the past thirty-five years. They have chosen a layman. In this respect Columbia acts now as Harvard, Yale, Pennsylvania, Johns Hopkins, Cornell, Michigan, Wisconsin, Minnesota, Northwestern, Missouri, Tulane, Colorado, California, Leland Stanford Junior, and Columbia itself have already acted. Moreover, the layman in this last instance is one whose life has been devoted to teaching and to educational authorship and administration.

All the American institutions of higher education have of late manifested a decided tendency to give their highest administrative positions to teachers or investigators, or writers on education, or to men who have united two of these functions. Many of the small colleges which were originally denominational in character, while preferring ministers as presidents, have chosen ministers who have been also professional teachers. For very successful instances of this procedure I need go no further than Dartmouth and Amherst. The young but vigorous University of Chicago acted on this principle in choosing its first president. The tendency is greatly to be commended, for the profession of education is certainly entitled to its own high administrative offices. This policy, however, which may now be said to have been adopted by the American institutions of higher education, marks emphatically the passing of the great business of education from the hands of the clerical profession—a significant change.

President Butler comes to his great office at a fortunate moment. The planting of the university on a new and admirable site has been in good part accomplished through the administrative genius of his predecessor. The organization of Columbia as a true university, with a series of departments or schools whose courses lead to properly coordinated degrees, has been well begun. The professional schools of Columbia will doubtless soon be firmly based on the departments which give the first degrees in arts and sciences, so that professional study in Columbia will begin where the culture courses in arts and sciences leave off.

Until lately the true relation between professional courses and culture courses found no expression in the organization of any of the American universities, and

it still finds no expression in the organization of the great majority of those universities. When all the leading universities of the country require a degree in arts or science for admission to their professional schools of law, medicine, divinity, teaching, architecture, and applied science, an effective support will be given to the bachelor's degree in arts and science, such as has never yet been given in the United States, and the higher walks of all the professions will be filled with men who have received not only a strenuous professional training, but a broad preliminary culture.

It is plain that the future prosperity and progress of modern communities is hereafter going to depend much more than ever before on the large groups of highly trained men which constitute what are called the professions. The social and industrial powers and the moral influences which strengthen and uplift modern society are no longer in the hands of legislatures, or political parties, or public men. All these political agencies are becoming secondary and subordinate influences. They neither originate nor lead; they sometimes regulate and set bounds, and often impede. The real inventions and motive powers which impel society forward and upward spring from those bodies of well-trained, alert, and progressive men known as the professions. They give effect to the discoveries or imaginings of genius. All the large businesses and new enterprises depend for their success on the advice and cooperation of the professions. * * *

[From the address by President PATTON, of Princeton.]

* * * We are living at a time when the interest of leading men in the affairs of our universities is widening every day. Men of wealth are giving with more than princely liberality to their endowment. They are doing this under the influence of high patriotic motives, rightly judging that to diffuse a taste for intellectual enjoyment among the people is to elevate the race and contribute to the sum of human happiness, and that the union of high ideals of living with a grasp of fundamental principles that underlie our social life is one of the surest guaranties of national stability. There is, however, a reciprocity of obligation arising out of this state of things. The universities must come out of their cloistered seclusion. They must understand that they are a part and that they have a part to play in the nation's life if they are to prove themselves worthy of the benefactions which they have received and which they are expecting. The world of science, the world of letters, and the world of philosophy have hitherto been regarded as the special domain of the university; but the university, if it is to do its full duty to the country, must take an interest also in the great world of affairs. The problems of government and the principles that underlie the phenomena of commerce must come within the purview of the university professor; and the student must acquire in our great seminary centers, or he at least must be given an opportunity to acquire, a philosophic insight into the fundamental concepts that control the practical affairs of life.

We shall continue, I suppose, to discuss as best we may the university curriculum, and whether in the end we shall approach a common position in regard to it; whether we shall tend toward perpetuating several fixed types of university study, one can not well predict; but of this I am sure: That in all our discussions we must remember that the will of the student is a factor to be reckoned with. Because a course of study is ideally the best it does not follow that it can be successfully made the curriculum for a young man who has attained his majority. When a student reaches the age of 20 or 21 it is too late to put before him the principle of "utility made compulsory" as a university programme. And while I thoroughly believe that in the earlier stage of a boy's life it is no small part of his education to be required to do what he ought to do, however irksome it may be, because it is his duty to do it, I am also of the opinion that, considering the

age to which a young man has arrived when he enters the university, there is more outcome of culture in some studies which are less cultural in themselves, but which the student loves, than in some other studies which, though more essentially cultural, are nevertheless those which he hates and will not study.

I am sure, too, that the increased demand for time which is being made by the professional school is raising very serious questions in regard to the undergraduate curriculum, which we must heed. In some way that delightful period of comradeship, amusement, desultory reading, and choice of incongruous courses of what we are pleased to call study, which is characteristic of so many undergraduates, must be shortened in order that more time may be given to the strenuous life of professional equipment. What is the best mode of solving this problem I am not prepared to say, but I think that Columbia has taken a very important step in the direction of its solution.

I do not think that we can feel entirely satisfied with the results of our elaborate scheme of university education. We have multiplied, it is true, the subjects of study, and the wishes and aptitudes of the student are consulted as never before; but there is danger that the undergraduate will be brought into contact with unrelated scraps of knowledge on many subjects instead of having a cultivated mind and commanding a single department. I sometimes think that the most useful professor in a university is not necessarily the specialist nor the man of greatest acumen in a department, but rather the professor of encyclopedia, whose business it would be to discuss the relations of the various departments of instruction to each other; for, after all, of what value is a knowledge of the scattered facts that belong to the various provinces of academic study if the student has no world view under which he can organize his material? A bare knowledge of facts, no matter from what quarter they may come, is a matter of comparatively little worth. It is only when the student has hit upon some key to nature's cipher, it is only when he is using his facts in verification of some scientific hypothesis, that he is doing truly valuable scientific work. Otherwise he is only a census taker in the kingdom of nature; a cataloguer in the great library of truth, writing titles and reading the backs of books. I therefore consider it a good omen that the trustees of this university have chosen a philosopher to fill the presidential chair; for, be the facts what they may which come under the notice of the student, it is the philosopher, the apostle of the idea, who is needed to make these dry bones live.

[From the address by President HARPER, of Chicago University.]

Institutions of every kind sooner or later adjust themselves to the forward movement of civilization. This is particularly true of educational institutions, and among these such adaptation is especially to be noted in institutions of a higher grade. The history of higher education in the United States, from the year in which Harvard was founded to the present time, is, in fact, the history of the growth and development of American civilization. Each type of institution—for example, the New England college as it existed a hundred or more years ago in New England and exists to-day scattered all through the Western States; or the State university, which, in its proper form, may be said to be the product of the last half century; or the school of technology, in most recent years taking its place side by side with or as a part of the university; or the university in the stricter sense, which is the product of the last two decades—each type of institution, I say, represents a phase of growth or a stage of growth in the life of a nation. It is the very latest phase of institutional development that is illustrated by the growth and character of the university whose guests we are this afternoon.

The trend of life in these last years seems to be toward that centralization which finds its most tangible expression in the growth of great cities. The same tendency

has shown itself in many of the activities which make up life, as well as in those things which relate to the places of living. Many have taught this as the most distinctive movement of the last quarter of a century. Everything points to an intensification of this movement rather than to its diminution. The city of a hundred thousand inhabitants fifty years ago is the city of a million to-day. What will the city of a million to-day be fifty years hence? No man can prophesy. While in connection with this massing together of human souls much is to be deprecated, and much of the good of life is lost, it is also true that by this concentration of human effort and the intense competition thereby provoked the world as a whole will be the gainer rather than the loser.

Just as in this way great multitudes of people are brought together in the various interrelationships of common life, so there are coming to exist types of educational institutions, lower and higher, adapted to this new environment. The public-school system of a city of two or three millions of inhabitants is an entirely different system from that which is adapted to the needs of a city of fifty or one hundred thousand people; and in our great modern cities there is to-day being wrought out a kind of school work as different from that of even fifty years ago as the methods of transportation and communication to-day are different from those of the same period.

It is just so with higher education. A university which will adapt itself to urban influence, which will undertake to serve as an expression of urban civilization, and which is compelled to meet the demands of an urban environment will in the end become something essentially different from a university located in a village or small city. Such an institution will in time differentiate itself from other institutions. It will gradually take on new characteristics, both outward and inward, and it will ultimately form a new type of university.

The urban universities found to-day in three or four of the largest cities in this country and the urban universities which exist in three or four of the great European centers form a class by themselves, inasmuch as they are compelled to deal with problems which are not involved in the work of universities located in smaller cities. These problems are connected with the life of the students, the care of thousands of the students instead of hundreds; the management of millions instead of thousands of dollars; the distribution of a staff of officers made up of hundreds instead of tens. Not only do new problems present themselves, but many of the old problems assume entirely different forms. The question, for example, of coeducation is one thing if considered from the point of view of an institution located in a village and having 200 or 300 students; it is, of course, a different thing in an institution having a thousand students and located in a small city, but it is a problem of still another kind when the institution has three or four thousand students and is in the heart of a city of one or two millions of people. The standards of life are different, and the methods of life are greatly modified; and what is true of this problem is true of a score or more.

In so far as an institution is intended to represent the life of those about it, their ideals, and their common thought, the task before an urban university is something as new and strange and complicated as is the life, political and individual, of these same cities; and just as the great cities of the country represent the national life in its fullness and in its variety, so the urban universities are in the truest sense, as has frequently been noted, national universities. * * *

[From the address by United States Commissioner HARRIS.]

It is my part on this auspicious occasion to remind you of the public schools of the country and to bear testimony to the general interest everywhere in the event of to-day, not only throughout the State universities and city high schools, but among the teachers and superintendents of the elementary schools.

For you, sir, who come to-day to succeed a long line of distinguished presidents in this venerable seat of learning, you have for many years made yourself a welcome member of the National Association of Teachers and aided its deliberations by your counsels. You have endeared yourself to its members by your frank and cordial fellowship. From the first you have associated yourself with that goodly number of leaders in higher education in our land who have realized how important it is to conduct even the most elementary education of the people in the light of the highest and best in human learning. You have labored for the enlightenment of the masses, and you have seen that this enlightenment must come not from a people's school which gives possession of a limited number of technical acquirements, skilled manipulation, and trained facilities, but rather from a school which opens to the minds of the children a vision of the far-off shining summits of human achievement in letters, and art, and in heroic service to humanity.

Elementary education ought to create a divine discontent with all kinds of arrested development. It ought to kindle an aspiration for daily growth by means of the library, the periodical, the social gathering.

Man alone of living creatures on the face of this planet can make a ladder of the past and climb thereon by progressive ascent from generation to generation.

The university reveals many rounds of this ladder, while the elementary school reveals only one or two rounds and may be so poorly taught as to occasion a belief in the mind of the average pupil that he has reached in six or eight years a level summit of all that is solid and enduring in human progress.

From this Philistinism it is the good fortune of our land to have defenders not only in the choice of leaders of the corps of instructors in elementary schools, high schools, and State universities, but in all public-spirited professors and presidents of privately endowed institutions.

Statistics collected from all parts of the land show that the acting majority of the people share your convictions in this matter. The nation grows in wealth from decade to decade, and the people show their desire to better the condition of their children by giving them an opportunity for more education. Thus the number of college students in each group of 1,000,000 of our population has now reached 1,285 persons, while thirty years ago it was only 590, and the people seem intent on giving the opportunity of a secondary education as well as a primary education in all parts of the United States. During the past ten years the number of public high schools supported by taxation increased from 2,526 to 6,005, and the number of students enrolled in them increased from 203,000 to 520,000, or two and one-half times the former number. Eight years' schooling belongs to the elementary school course and four years' more to the high school course; thus the voting population of the United States have chosen to add four years more of instruction to the eight years given in the elementary schools. While twelve years of free public education are possible in all of our cities and large villages, the people have not been able as yet to avail themselves of it. The actual average amount of schooling obtained in public and private schools throughout the United States in the year 1900 amounted to five years of two hundred days' actual attendance each. But this small amount of schooling, which hardly sufficed for reading, writing, the elements of arithmetic, and geography, is 50 per cent greater than the amount of the average education received thirty years ago.

In the two parts of higher education the first, or that of undergraduate study in the college, is devoted to learning principles that will connect the present with the past and unite them in one organic whole. The student must learn to interpret the present in terms of the past and also the past in terms of the present, so that he may acquire a habit of seeing the world as a progressive development from nature to man and from man as animal towards man as image of the

Divine. Higher education is a course in philosophy in so far as it shows to the student how all branches of human learning form a connected whole and in so far as it creates in him the habit of looking upon each branch as a contribution to the better understanding of all others.

But higher education does not end until it has taught the student how to concentrate all his powers on a special investigation, using his experience and his acquired learning to assist in the discovery of something that is new and useful. * * *

[From the inaugural address of President BUTLER.]

* * * The shifting panorama of the centuries reveals three separate and underlying forces which shape and direct the higher civilization. Two of these have a spiritual character, and one appears to be, in part at least, economic, although clearer vision may one day show that they all spring from a common source. These three forces are the church, the state, and science, or, better, scholarship. Many have been their interdependences and manifold their intertwinings. Now one, now another seems uppermost. Charlemagne, Hildebrand, Darwin are central figures, each for his time. At one epoch these forces are in alliance, at another in opposition. Socrates died in prison, Bruno at the stake. Marcus Aurelius sat on an Emperor's throne, and Thomas Aquinas ruled the mind of a universal church. All else is tributary to these three, and we grow in civilization as mankind comes to recognize the existence and the importance of each.

It is commonplace that in the earliest family community church and state were one. The patriarch was both ruler and priest. There was neither division of labor nor separation of function. When development took place, church and state, while still substantially one, had distinct organs of expression. These often clashed, and the separation of the two principles were thereby hastened. As yet scholarship had hardly any representatives. When they did begin to appear, when science and philosophy took their rise, they were often prophets without honor either within or without their own country, and were either misunderstood or persecuted by church and state alike. But the time came when scholarship, truth-seeking for its own sake, had so far justified itself that both church and state united to give it permanent organization and a visible body. This organization and body was the university. For nearly ten centuries—a period longer than the history of parliamentary government or of Protestantism—the university has existed to embody the spirit of scholarship. Its arms have been extended to every science and to all letters. It has known periods of doubt, of weakness, and of obscurantism; but the spirit which gave it life has persisted and has overcome every obstacle. To-day, in the opening century, the university proudly asserts itself in every civilized land, not least in our own, as the bearer of a tradition and the servant of an ideal without which life would be barren and the two remaining principles which underlie civilization robbed of half their power. To destroy the university would be to turn back the hands upon the dial of history for centuries; to cripple it is to put shackles upon every forward movement that we prize—research, industry, commerce, the liberal and practical arts and sciences. To support and enhance it is to set free new and vitalizing energy in every field of human endeavor. Scholarship has shown the world that knowledge is convertible into comfort, prosperity, and success, as well as into new and higher types of social order and of spirituality. "Take fast hold of instruction," said the Wise Man; "let her not go; keep her, for she is thy life."

Man's conception of what is most worth knowing and reflecting upon, of what may best compel his scholarly energies, has changed greatly with the years. His earliest impressions were of his own insignificance and of the stupendous powers and forces by which he was surrounded and ruled. The heavenly fires, the storm cloud and the thunderbolt, the rush of waters, and the change of seasons

all filled him with an awe which straightway saw in them manifestations of the superhuman and the divine. Man was absorbed in nature, a mythical and legendary nature, to be sure, but still the nature out of which science was one day to arise. Then, at the call of Socrates, he turned his back on nature and sought to know himself, to learn the secrets of those mysterious and hidden processes by which he felt and thought and acted. The intellectual center of gravity had passed from nature to man. From that day to this the goal of scholarship has been the understanding of both nature and man, the uniting of them in one scheme or plan of knowledge, and the explaining of them as the offspring of the omnipotent activity of a Creative Spirit, the Christian God. Slow and painful have been the steps toward the goal, which to St. Augustine seemed so near at hand, but which has receded through the intervening centuries as the problems grew more complex and as the processes of inquiry became so refined that whole worlds of new and unsuspected facts revealed themselves. Scholars divided into two camps. The one would have ultimate and complete explanations at any cost; the other, overcome by the greatness of the undertaking, held that no explanation in a large or general way was possible. The one camp bred sciolism; the other narrow and helpless specialization.

At this point the modern university problem took its rise, and for over four hundred years the university has been striving to adjust its organization so that it may most effectively bend its energies to the solution of the problem as it is. For this purpose the university's scholars have unconsciously divided themselves into three types or classes: Those who investigate and break new ground; those who explain, apply, and make understandable the fruits of new investigation, and those philosophically minded teachers who relate the new to the old and, without dogma or intolerance, point to the lessons taught by the developing human spirit from its first blind gropings toward the light on the uplands of Asia or by the shores of the Mediterranean, through the insights of the world's great poets, artists, scientists, philosophers, statesmen, and priests, to its highly organized institutional and intellectual life of today. The purpose of scholarly activity requires for its accomplishment men of each of these three types. They are allies, not enemies; and happy the age, the people, or the university in which all three are well represented. It is for this reason that the university which does not strive to widen the boundaries of human knowledge, to tell the story of the new in terms that those familiar with the old can understand, and to put before its students a philosophical interpretation of historic civilization is, I think, falling short of the demands which both society and university ideals themselves may fairly make.

Again, a group of distinguished scholars in separate and narrow fields can no more constitute a university than a bundle of admirably developed nerves without a brain and spinal cord can produce all the activities of the human organism. It may be said, I think, of the unrelated and unexplained specialist, as Matthew Arnold said of the Puritan, that he is in great danger because he imagines himself in possession of a rule telling him the unum necessarium, or one thing needful, and that he then remains satisfied with a very crude conception of what his rule really is, and what it tells him, and in this dangerous state of assurance and self-satisfaction proceeds to give full swing to a number of the instincts of his ordinary self. And these instincts, since he is but human, are toward a general view of the world from the very narrow and isolated spot on which he stands. Only the largest and bravest spirits can become great specialists in scholarship and resist this instinctive tendency to hasty and crude philosophizing. The true scholar is one who has been brought to see the full meaning of the words development and history. He must, in other words, be a free man, as Aristotle understood the term. The free man is he who has a largeness of view which is unmis-

takable and which permits him to see the other side, a knowledge of the course of man's intellectual history and its meaning, a grasp of principles and a standard for judging them, the power and habit of reflection firmly established, a fine feeling for moral and intellectual distinctions, and the kindliness of spirit and nobility of purpose which are the support of genuine character. On this foundation highly specialized knowledge is scholarship; on a foundation of mere skill, deftness, or erudition it is not. The university is concerned with the promotion of the true scholarship. It asks it in its scholars who teach, it inculcates it in its scholars who learn. It believes that the languages, the literatures, the art, the science, and the institutions of those historic peoples who have successively occupied the center of the stage on which the great human drama is being acted out are full of significance for the world of to-day, and it asks that those students who come to it to be led into special fields of inquiry, of professional study, or of practical application, shall have come to know something of all this in an earlier period of general and liberal studies.

Mr. Emerson's oration before the oldest American society of scholars, made nearly sixty-five years ago, is the magnetic pole toward which all other discussions of scholarship must inevitably point. His superb apology for scholarship and for the scholar as Man Thinking opened an era in our nation's intellectual life. The scholar, as Mr. Emerson drew him, is not oppressed by nature or averse from it, for he knows it as the opposite of his soul, answering to it part for part. He is not weighed down by books or by the views which Cicero, which Locke, which Bacon have given, for he knows that they were young men like himself when they wrote their books and gave their views. He is not a recluse or unfit for practical work, because he knows that every opportunity for action passed by is a loss of power. The scholar, in short, as the university views him and aims to conserve and to produce him and his type, is a free man, thinking and acting in the light of the world's knowledge and guided by its highest ideals.

In this sense the university is the organ of scholarship, and in this sense it aims to be its embodiment. The place of scholarship has been long since won and is more widely recognized and acknowledged than ever before. The church and the state which first gave it independence are in close alliance with it and it with them. The three are uniting in the effort to produce a reverent, well-ordered, and thoughtful democratic civilization in which the eternal standards of righteousness and truth will increasingly prevail.

But a university is not for scholarship alone. In these modern days the university is not apart from the activities of the world, but in them and of them. It deals with real problems and it relates itself to life as it is. The university is for both scholarship and service; and herein lies that ethical quality which makes the university a real person, bound by its very nature to the service of others. To fulfill its high calling the university must give, and give freely, to its students, to the world of learning and of scholarship, to the development of trade, commerce, and industry, to the community in which it has its home, and to the State and nation whose foster child it is. A university's capacity for service is the rightful measure of its importunity. The university's service is to-day far greater, far more expensive, and in ways far more numerous than ever before. It has only lately learned to serve, and hence it has only lately learned the possibilities that lie open before it. Every legitimate demand for guidance, for leadership, for expert knowledge, for trained skill, for personal service it is the bounden duty of the university to meet. It may not urge that it is too busy accumulating stores of learning and teaching students. Serve it must, as well as accumulate and teach, upon pain of loss of moral power and impairment of usefulness. At every call it must show that it is—

"Strong for service still, and unimpaired."

The time-old troubles of town and gown are relics of an academic aloofness which was never desirable and which is no longer possible.

In order to prepare itself for efficient service the university must count in its ranks men competent to be the intellectual and spiritual leaders of the nation and competent to train others for leadership. Great personalities make great universities. And great personalities must be left free to grow and express themselves, each in his own way, if they are to reach a maximum of efficiency.

Spiritual life is subject neither to mathematical rule nor to chemical analysis. Rational freedom is the goal toward which the human spirit moves, slowly but irresistibly, as the solar system toward a point in the constellation Hercules; and rational freedom is the best method for its movement. Moreover, different subjects in the field of knowledge and its applications require different approach and different treatment. It is the business of the university to foster each and all. It gives its powerful support to the learned professions, whose traditional number has of late been added to by architecture, engineering, and teaching, all of which are closely interwoven with the welfare of the community. It urges forward its investigators in every department and rewards their achievements with the academic laurel. It studies the conditions under which school and college education may best be given, and it takes active part in advancing them. In particular, it guards the priceless treasure of that liberal learning which I have described as underlying all true scholarship and gives to it full-hearted care and protection. These are all acts of service direct and powerful.

The university does still more. It lends its members for expert and helpful service to nation, State, and city. University men are rapidly mobilized for diplomatic service, for the negotiation of important treaties, for the administration of dependencies, for special and confidential service to the Government, or some department of it, and the task done, they return quietly to the ranks of teaching scholars, as the soldiers in the armies of the war between the States went back to civil life without delay or friction. These same university men are found foremost in the ranks of good citizenship everywhere and as laymen in the service of the church. They carry hither and yon their practical idealism, their disciplined minds, and their full information, and no human interest is without their helpful and supporting strength. It is in ways like these that the university has shown a thousand times that sound theory and correct practice are two sides of a shield. A theorist is one who sees, and the practical man must be in touch with theory if he is to see what it is that he does.

What the future development of the great universities is to be perhaps no one can foresee. But this much is certain, every city which because of its size or wealth or position aims to be a center of enlightenment and a true world capital must be the home of a great university. Here students and teachers will throng by the mere force of intellectual gravitation, and here service will abound from the mere host of opportunities. The city, not in its corporate capacity, but as a spiritual entity, will be the main support of the university, and the university in turn will be the chief servant of the city's higher life. True citizens will vie with each other in strengthening the university for scholarship and for service. In doing so they can say, with Horace, that they have builded themselves monuments more lasting than bronze and loftier than the pyramids reared by kings, monuments which neither flood nor storm nor the long flight of years can overturn or destroy. Sir John de Balliol, doing a penance fixed by the Abbot of Durham; Walter de Merton, making over his manor house and estates to secure to others the advantages which he had not himself enjoyed, William of Wykeham, caring generously for New College and for Winchester School; John Harvard, leaving half his property and his library to the infant college by the Charles, and Elihu Yale, giving money and his books to the collegiate school in New Haven,

have written their names on the roll of the immortals and have conferred untold benefits upon the human race. Who were their wealthy, powerful, and high-born contemporaries? Where are they in the grateful esteem of the generations that have come after them? What service have they made possible? What now avails their wealth, their power, their high birth? Balliol, Merton, Harvard, Yale are names known wherever the English language is spoken, and beyond. They signify high purpose, zeal for learning, opposition to philistinism and ignorance. They are closely interwoven with the social, the religious, the political, the literary history of our race. Where else are there monuments such as theirs?

Scholarship and service are the true university's ideal. The university of to-day is not the "home of lost causes, and forsaken beliefs, and unpopular names, and impossible loyalties." It keeps step with the march of progress, widens its sympathies with growing knowledge, and among a democratic people seeks only to instruct, to uplift, and to serve, in order that the cause of religion and learning and of human freedom and opportunity may be continually advanced from century to century and from age to age.

[From the speech of President ROOSEVELT at the alumni dinner.]

* * * When it comes to rendering service, that which counts chiefly with a college graduate, as with any other American citizen, is not intellect so much as what stands above mere power of body, or mere power of mind, but must in a sense include them, and that is character. It is a good thing to have a sound body and a better thing to have a sound mind; and better still to have that aggregate of virile and decent qualities which we group together under the name of character. I said both decent and virile qualities—it is not enough to have one or the other alone. If a man is strong in mind and body and misuses his strength, then he becomes simply a foe to the body politic, to be hunted down by all decent men; and if on the other hand he has thoroughly decent impulses but lacks strength, he is a nice man but does not count. You can do but little with him.

It is in the battle of life as it was in the great civil war. It was absolutely necessary in the civil war that a soldier should have patriotism, that he should have devotion to the country; but no matter how devoted he was to country, if he had a slight tendency to run away his usefulness was impaired thereby. And so in the unending strife for civic betterment, small is the use of those people who mean well but who mean well feebly. The man who counts is the man who is decent and who makes himself felt as a force for decency, for cleanliness, for civic righteousness. That is the man who counts. He must have several qualities. First and foremost, of course, he must be honest, he must have the root of right thinking in him. That is not enough. In the next place, he must have courage; the timid good man counts but little in the rough business of trying to do well the world's work. And finally, in addition to being honest and brave he must have common sense. If he does not have it, no matter what other qualities he may have, he will find himself at the mercy of those who, without possessing his desire to do right, know only too well how to make the wrong effective.

To you, the men of Columbia here, the men of this great city, and the men who when they graduate go to other parts of the country, to you we have the right to look in an especial degree for service to the public. To you much has been given, and woe and shame to you if we can not rightfully expect much from you in return.

We can pardon the man who has had no chance in life if he does but little for the state, and we can count it greatly to his credit if he does much for the state. But upon you who have had so much rests a heavy burden to show that you are worthy of what you have received. A double responsibility is upon you to use aright, not merely the talents that have been given to you, but the chances you

have to make much of these talents. We have a right to expect service to the state from you in many different lines; in the line of what, for lack of a better word, we will call philanthropy; in all lines of effort for public decency.

Remember always that the man who does a thing so that it is worth doing is always a man who does his work for the work's sake. Somewhere in Ruskin there is a sentence to the effect that the man who does a piece of work for the fee, normally does it in a second-rate way, and that the only first-rate work is the work done by the man who does it for the sake of doing it well, who counts that fact as itself his reward. In no kind of work done for the public do you ever find the really best, except where you find the man who takes hold of it because he is irresistibly impelled to do it; because he wishes to do it for the sake of doing it well, not for the sake of any reward that comes afterwards or in connection with it. Of course, gentlemen, that is true of almost every other walk of life, just exactly as true as it is in politics. A clergyman is not worth his salt if he finds himself bound to be such for the material reward of that profession. Every doctor who has ever succeeded has been a man incapable of thinking of his fee when he did a noteworthy surgical operation. A scientific man, a writer, a historian, an artist, can only be a good man of science, a first-class writer, a first-class artist, if he does his work for the sake of doing it well; and this is exactly as true in political life, exactly as true in every form of social effort, in every kind of work done for the public at large. The man who does work worth doing is the man who does it because he can not refrain from doing it; the man who feels it borne in on him to try that particular job and see if he can not do it well. And so it is with a general in a field. The man in the civil war who thought of any material reward for what he did was not among the men whose names you read now on the honor roll of American history.

So the work that our colleges can do is to fit their men, fit their graduates to do service; to fit the bulk of them, the men who can not go in for the highest type of scholarship, to do the ordinary citizen's service for the country; and they can fit them to do this service only by training them in character. To train them in character means to train them not only to possess, as they must possess, the softer and gentler virtues, but also the virile powers of a race of vigorous men, the virtues of courage, of honesty—not merely the honesty that refrains from wrongdoing, but the honesty that wars aggressively for the right—the virtues of courage, honesty, and finally, hard common sense.

FREE TEXT-BOOKS—BENEFITS, OBJECTIONS, AND COST.[a]

I.—Benefits and Objections.

DELAWARE.

Dover.—Benefits: All pupils have books whenever a class is formed. Poor children placed on same footing as more favored ones. Expense to community as a whole is far less.

Objections: We note no serious objections unless it be that fewer books (text) are found in homes.

MAINE.

Bangor.—Benefits: Prompt supply. Variety. Lengthened school life of child. The advantages over disadvantages are perfectly overwhelming.

Objection: Dirt.

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[a] Reprinted from the Michigan School Report of 1898, Part III, pp. 100-109; prepared by State Superintendent Jason E. Hammond from replies by city superintendents to a circular letter of inquiry sent out by him.

Bath.—Benefits: The rich help the poor, making education free and equal to all. It actually takes less money from the town and facilitates equipment.

Objections: Disseminating infectious disease. By care this is reduced to a minimum and practically no objection.

Belfast.—Benefits: Uniform text-books. Benefit to poor children. All children have good books. All children held responsible to city, hence the value in this regard not noticed under old system.

Objections: No serious objection, unless the spread of disease, which can be guarded against.

Biddeford.—Benefits: Relieves the parent of a heavy expense annually, and is practically no burden to the taxpayer. Books are bought by the city much cheaper than they were by private individuals. Every pupil is sure to have a proper supply of books at the beginning of the year.

Objections: The only objection is the soiled condition of the books when they have been used and are put into the hands of other pupils.

Lewiston.—Benefits: Better supply. Changes more easily made.

Objections: Our pupils should possess and retain certain books.

Rockland.—Benefits: Uniformity. Plenty of them. Kind we wish.

Objections: Children being obliged to use books used by others the year before.

Saco.—Benefits: Every pupil has a book, the poor as well as the rich.

Objections: There is a greater destructiveness of books on the part of the pupils. If parents were obliged to pay for them, children and parents would have more respect for them and use them with more care. It is the unthrifty families who destroy the books and double the expense to the city. Adds greatly to care and labor of school committee or superintendent.

MARYLAND.

Belair.—Benefits: Popularizes the system generally; keeps all pupils properly equipped for their work; greatly relieves teachers, thus leaving their best energy for teaching; removes the pauper stigma from those unable to buy or hire books; largely increases attendance.

Objections: Claimed by some to be too parental; chance to spread contagious diseases; deprives child of benefits of a home library. The last alone has any weight.

Frederick.—Benefits: Enables principal to supply pupils with necessary books in all grades. Puts all pupils on an equality. No exemptions required for indigent pupils. Work of schools more effective. Less friction between teachers, patrons, and school officers.

Objections: A few taxpayers object on the score that they are required to help pay for books for other people's children. They make same objection to taxation for free schools.

MASSACHUSETTS.

Boston.—Benefits: It can safely be claimed that present method can hardly be improved upon for the promptness with which pupils can begin their work at opening of year.

Brockton.—Benefits: Children all supplied with books when needed. No delay.

Objections: No books in their homes after they leave school.

Cambridge.—Objections: None.

Everett.—Benefits: All pupils fully provided with similar text-books. Total cost to city less than as though books were bought by individuals.

Objections: Pupils do not own books. Different pupils use same books at different times. Books become soiled, perhaps contain disease germs.

Haverhill.—Benefits: Uniformity of text-books and supplies, and the same always at hand when needed.

Objections: Leads to extravagant use of such. No foundation for home libraries.

Lowell.—Benefits: They put each child on same footing in regard to their text-books.

Objections: Do not know of any.

Lynn.—Benefits: Uniformity of text-books. Better care of books is enforced by teachers. Increased attendance. Less objection by parents to making needed changes in text-books.

Objections: Pupils have to use books that have been used by other pupils, and complain that the books they get are not in proper condition.

Medford.—Benefits: All supplied promptly at beginning of year. Easier to get the best or to change when a better book appears. More varied assortment can be used.

Objections: Pupils do not have anything at home; no dictionary, even, when they leave school. Discourages pupils for owning anything, and leads them to expect the State to do everything for them.

New Bedford.—Benefits: Economy. Actual cost per pupil much less. Great economy in time. Books are ready for use promptly. Justice is done. In a system of compulsory education books and supplies should be furnished.

Objections: Demand upon teachers' time in distributing and caring for them. Danger of contagious diseases. Creates in pupils' minds a feeling of public dependence. Do not think this last is extreme at all.

North Adams.— Benefits: Saves money, time, and trouble.

Objections: None.

Pittsford.—Objections: None.

Salem.—Objections: Single objection is the great lack of books in homes.

Somerville.—Benefits: Uniformity; promptness in beginning work; no differentiation between rich and poor; ease of change; better care.

Objections: Carelessness in use. Absence of books in home after child leaves school.

Springfield.—Benefits: Economy in use; bought at wholesale; in use longer; a larger variety of books possible; pupils promptly supplied; time of teachers and pupils saved.

Objections: About only objection is possibility of communicating contagious diseases. With proper care this objection may be met satisfactorily. In this city all books are covered when passed from one pupil to another.

Taunton.—Benefits: Economy both in time and money. Increased school attendance of poorer class. Schools are in fact "free."

Objections: A child using another's dirt. Takes away foundation of one's library. Schoolbooks are nucleus of private library. Think one more careful of his own things than when they are too free.

Waltham.—Benefits: Poor pupils supplied. School begins first day.

Objections: High-school pupils have no books with which to continue study after leaving school.

Weymouth.—Benefits: Every child has books and material and all (rich and poor) are treated the same.

Objections· Dirty books are apt to fall into clean hands.

MICHIGAN.

Detroit.—Benefits: The cost is very much less than if purchased individually, and the books are kept in better condition.

Objections: None.

Menominee.—Benefits: Books are uniform and all have books all of the time. Cheaper. Enables us to enforce the truancy law more easily. Get full wear of books.

Objections: Do not know of any. Those given usually are weak when advantages are known by experience.

Muskegon.—Benefits: (1) Economical. (2) Educational. (3) Ethical.

Objections: (1) Sanitary—Danger from contagion. (2) Educational—Value and opportunity that comes from ownership of books is lost to a certain extent.

Saginaw.—Benefits: Cheapness; large increase of attendance; prevents all delays in securing books at beginning of term; teaches neatness and care of property; aids systemization of school work.

Objections: Fosters a nonbook-buying habit. Takes away almost the only library thousands of homes possess.

West Saginaw.—Benefits: Books on hand to begin work at once. The economy permits of a larger number of books for pupil. Pupils learn to be neater and less destructive.

Objections: Some books get so dirty, but by a system of fines this is being overcome.

MINNESOTA.

Duluth.—Benefits: The desirable books can always be had. Each pupil can be supplied irrespective of their means. Pupils are taught to respect the property of others. Pupils have advantage of greater variety of books.

Objections: Chief objection the spread of disease through indiscriminate use of the books, but if proper care is used and the books frequently covered this is reduced to a minimum.

Minneapolis.—Benefits: Work taken up at beginning of year, and no children are absent on account of lack of books.

Objections: We have abolished the plan so far as high school is concerned. There was feeling that text-books such as are used in high school should be owned by the pupils.

MONTANA.

Butte.—Benefits: It places the poor child on an equality with the rich. Affords poor parents no excuse for not sending children to school.

Objections: The heavy taxpayers are about the only kickers.

NEBRASKA.

Columbus.—Benefits: Economy; easy gradation; promptness in beginning work.

Objections: Produces carelessness in handling books. Lack of appreciation of books. Liability to transmit disease.

Falls City.—Benefits: The poor children have same opportunity for study as the rich. The burden of expense falls upon those best able to bear it. Economy.

Objections: Those having no children in school claim they are unjustly taxed.

Fremont.—Benefits: They are incalculable. I know of no greater calamity that could befall our schools than a return to old system. When schools are supplied, the work is satisfactory from beginning of first day, and more work is accomplished by schools. To have these books for use, realizing they are public property, and being held responsible for them, teaches pupils a valuable lesson in care of property, and makes them recognize the rights of the public.

Grand Island.—Benefits: Uniformity. All pupils well provided. Books better cared for. No expense to people moving into new districts.

Objections: The only objections we hear—and they are few—are from those who have no children in school.

Hastings.—Benefits: Great saving of expense to consumers, the same book serving for from four to seven years in successive classes. Any desired change of texts can be made on terms involving less loss. Satisfactory books are always at hand when work demands.

Objections: There is a feeling of very general, almost universal, satisfaction with our free text-book law. We believe it to be the ideal solution of this question.

Kearney.—Benefits: Certainty of uniformity. Teachers can do the work more easily and accomplish more. Saves time and bother.

Objections: The expense. There is a waste from carelessness that the best care can not avoid. It makes the facility for getting an education too easy and the less appreciated. Some parents seem to think they should be paid for the privilege of educating their children, besides having everything furnished them.

Norfolk.—Benefits: Satisfactory work. Cheaper books. Sufficient books for all pupils.

Objections: Tendency on part of pupils to depreciate value of books. Pupils on leaving school have generally no books of their own.

Omaha.—Benefits: No delay in getting books. No excuse for trying to attend school without books. Gives poor children same facilities as rich. When books become unfit for use can be destroyed. Costs community not more than half the other plan.

Objections: Some children want to own books they use. Has tendency toward paternalism among people who think the government should furnish everything. Some children become wasteful if not watched. Objections not to be compared for a moment with benefits of plan.

Plattsmouth.—Benefits: Only to supply pupils who are too poor to buy.

Objections: Objectionable from a sanitary standpoint. It has been demonstrated that pupils are more destructive with books which cost them nothing.

Schuyler.—Benefits: Greater freedom in classifying pupils. Allows poor people to educate their children. Promotes better attendance. Easier to change for a better book.

Objections: Spreads contagious diseases. Pupils do not take as good care of books. Pupils can not form a library of their own.

Wahoo.—Benefits: They can be bought cheaper in quantities, and each pupil is sure to be provided with suitable books.

Objections: Pupils are not so careful of the books as they would be of private property.

York.—Benefits: Cheaper. Books always ready for classes. Pupils properly supplied.

Objections: A neat pupil having occasionally to use a book after a careless one.

NEW HAMPSHIRE.

Concord.—Benefits: Schools begin work the first day of school.

Objections: Books become filthy in time. Good agent for transmission of disease. Inclined to make next generation improvident.

Manchester.—Benefits: Great convenience, and saving of many dollars to patrons of the public schools.

Objections: Nonownership by pupils for future reference.

NEW JERSEY.

Newark.—Benefits: Abundant and prompt supply. Greatly diminished expense, owing to use of books by succeeding classes. Equalization of school requirements, lessening social distinctions, and making logical compulsory attendance.

Objections: Depriving some children and families of ownership of books. In some minds a spread of contagious diseases—a difficulty easily remedied.

NEW YORK.

Ithaca.—Benefits: Change when advisable without burden to parents; saving in expense; prompt supply. Necessary accompaniment of a compulsory-education

law. The poor are neither humiliated nor encouraged in pauperism; do not have to beg for their supply.

Objections: Possibility of contagion; no encouragement to permanent retention of books, nor purchase of private library. Lack of books for reference in homes.

Lansingburg.—Benefits: All have books. Many would not have them at all or late in the term.

Saratoga Springs.—Benefits: Uniformity, abundance of books. No waiting for pupils to get books, hence a gain in time. Ability to change unsatisfactory books.

Objections: I can see none.

Syracuse.—Benefits: Schools ready for work at beginning of term. Do not have to wait until pupils get ready to buy books. No trouble to change text-books. Saving of one-sixth of cost.

Objections: None.

Yonkers.—Benefits: Books and supplies can be bought more advantageously for the taxpayers when bought in large quantities by board.

Objections: We have found none.

PENNSYLVANIA.

Allegheny.—Benefits: Saving in cost of 40 per cent. Greater promptness in getting classes supplied. Largely increased attendance. Absolutely free public-school system.

Objections: No objection whatever. All the theoretical objections urged before we adopted the system have failed absolutely to materialize.

Altoona.—Benefits: Cost to the district 25 to 50 per cent less than at retail.

Objections: Carelessness and extravagance on part of pupils.

Erie.—Benefits: Greater regularity of attendance; longer continuance in school, especially in high school, where cost of books was burdensome; benefit to poor, because free books promote freer attendance.

Objections: Absence of books in home after child leaves school. Lessens interest of parent in school and therefore lessens his sense of individual responsibility in making provision for education of his children. Books being free, children become careless in use of them.

Harrisburg.—Benefits: Saving of expense to parents. Pupils always supplied with books. Increased attendance.

Objections: When a pupil leaves school he has not text-books at home. Danger of disease.

Hazleton.—Benefits: We have them on hand for immediate use. All are supplied. Easier to get very best. More supplementary books can be obtained. Hundreds of children come to school who could not do so before; this is particularly true in grammar and high-school grades.

Objections: Some danger from infection. Less books found in homes. Pupils are without books during the vacations. First and third objections, however, are obviated by local regulations, and the second by establishing libraries.

Pottsville.—Benefits: Better attendance at school, especially in the higher grades.

Objections: Books used by different pupils. Pupils not returning books at close of school.

Reading.—Benefits: More pupils take advantage of educational privileges as there is no increase of taxation to parents for school purposes.

Objections: Pupils do not own books after leaving school.

York.—Benefits: Less cost to community. All provided with necessary material. Relief to the poor.

Objections: None that can not be met.

RHODE ISLAND.

Bristol.—Benefits: Places all pupils on same footing.

Pawtucket.—Benefits: Increased attendance, particularly in higher grades. Saving of time; scholars always well supplied.

Objections: Some claim handling of books by different pupils and carrying them into all kinds of homes is unhealthy for scholars; liable to carry disease.

Peacedale.—Benefits: Every pupil is supplied.

Objections: None.

Woonsocket.—Benefits: Increased attendance. Saves time, books always on hand. Easier to change books when old and out of date.

Objections: Microbes. Lack of interest because there is not individual ownership. Children have no books after leaving school.

VERMONT.

Bellows Falls.—Benefits: Pupils all have books ready to start in together. Lifts burden from poor and enables many to attend high school who otherwise could not possibly go. Lengthens school life of average child.

Objections: Unless care is taken there is slight danger from contagious diseases, though this is oftener from pencils or penholders. In some families about all the books purchased were text-books; tendency now is to have no books at all.

Bennington.—Benefits: Economy; greater variety and number of books possible; better condition of books.

Objections: Many of the text-books should be owned by pupils for future use. Responsibility of teacher in care of books.

Rutland.—Benefits: All pupils supplied alike and more regular attendance.

Objections: I know of no serious objection with us.

WISCONSIN.

Berlin.—Benefits: Uniformity of books; all supplied and at a cost less than to buy, while school with careful management meets with a small profit.

Eau Claire.—Benefits: Many pupils attend schools who would not be able to meet the expense of text-books and would be obliged to drop out of school.

Objections: Only objection is using books after they are soiled.

La Crosse.—Benefits: Greater economy to the people. No loss of time for lack of books. Greater variety of books may be used. Easier to keep up to date with text-books. Gives better satisfaction to patrons. Better attendance.

Objections: After a time have to use some soiled books. No sense of ownership in books by pupil.

Marinette.—Benefits: Everybody has material and books of the right kind to work with. Pupils are trained to take care of books. An obsolete text-book may be readily exchanged. By system of transferring all of the best readers and supplementary reading may be had at no greater outlay than if but one reader were used throughout.

Objections: Great care to teachers and superintendent. Possibility of trying to economize, thus lowering quality. Paternalism fostered. Parents and pupils learn to expect to be given things.

Portage.—Benefits: Children of the poor are not subjected to any humiliating distinction. Economical. Teachers are relieved of all annoyance resulting from an insufficiency of books. Any desirable change in books can be made without friction and without loss.

Objections: Have never heard any objection raised that was not frivolous.

II.—*Average cost per pupil in free text-book cities.*[a]

Name of city.	Number of years.	Are free text-books satisfactory?	Cost per pupil for text-books only.		Cost per pupil for text-books and supplies.	
			Below high school.	Including high school.	Below high school.	Including high school.
DELAWARE.						
1. Dover	7	Yes		$0.50		
DISTRICT OF COLUMBIA.						
2. Washington	6		$0.46		$0.95	
MAINE.						
3. Bangor	9	Yes				$1.10
4. Bath	15	Yes				1.25
5. Belfast	5	Yes		.90		
6. Biddeford	8	In many respects		.75		
7. Lewiston	10	Yes		1.50		
8. Rockland	8	Very				.90
9. Saco	7	Not entirely	.38	.57		
MARYLAND.						
10. Bolair	2				.75	.85
11. Frederick	2	Yes		.61		
MASSACHUSETTS.						
12. Boston	14	Yes				.82
13. Brockton	14	Yes			1.05	1.60
14. Cambridge	14	Yes			.80	1.09
15. Everett	13	Yes	.90	1.00		
16. Haverhill	(b)	Not entirely		1.30		
17. Lowell	16	Yes			.90	1.30
18. Lynn	16	Yes	.50	.65		1.10
19. Medford	14	Yes				2.00
20. New Bedford	14	Yes	.55	.68		1.06
21. North Adams	15	Yes				1.63
22. Northampton	14	Yes		.82		1.61
23. Pittsford	15	Yes		.85		
24. Salem	14	Yes	.32	.62		
25. Somerville	15	Yes				1.79
26. Springfield	14	Yes	1.92	2.23		
27. Taunton	14	Yes				1.00
28. Waltham	10	Yes	.80	1.25		
29. Weymouth	13	Entirely				1.35
MICHIGAN.						
30. Detroit	6	Yes	c .65			
31. Menominee	77	Yes				.56
32. Muskegon	6	Yes	.32			
33. Saginaw	13	Very		.57		
34. West Saginaw	8	Yes		.46		
MINNESOTA.						
35. Duluth	10	Very	.40	.75		
36. Minneapolis	5	Yes		.50		
MONTANA.						
37. Butte	1	Yes	2.00			
NEBRASKA.						
38. Columbus	6	Yes	.45	.50		
39. Falls City	5	Thoroughly so				.85
40. Fremont	7	Yes				.65
41. Grand Island	7	Yes		.50		
42. Hastings	8	Highly so	.45	.50		
43. Kearney	7	Fairly so				.50
44. Norfolk	7	Yes			.80	1.45
45. Omaha	12	Yes	.50	.80		
46. Plattsmouth	3	A question	.58			
47. Schuyler	5	Yes		.50		
48. Wahoo	4	Yes				1.00
49. York	6	Yes	.20	.35		

[a] From the Michigan School Report of 1898, Part III, pp. 100–109.
[b] Several years.
[c] This includes clerk hire and repair of books.

II.—*Average cost per pupil in free text-book cities*—Continued.

Name of city.	Number of years.	Are free text-books satisfactory?	Cost per pupil for text-books only.		Cost per pupil for text-books and supplies.	
			Below high school.	Including high school.	Below high school.	Including high school.
NEW HAMPSHIRE.						
50. Concord	14	Yes				$0.61
51. Manchester	9	Yes				1.25
NEW JERSEY.						
52. Bridgeton	20	Yes		$1.00		
53. Newark	40	Yes			$0.68	.89
54. Newton	4	Very				1.00
NEW YORK.						
55. Ithaca	23	Yes		.50		
56. Lansingburg	12	Yes			.76	
57. Saratoga Springs	10	Yes	$0.35	.45		.50
58. Syracuse	4	Yes	1.00			
59. Yonkers	16	Yes		.94		
PENNSYLVANIA.						
60. Allegheny	4	Very	.36		.66	
61. Altoona	5	Yes				1.00
62. Erie	5	Yes	.23	.52		
63. Harrisburg	6	Yes		.50		
64. Hazleton	4	Yes		.78		
65. Philadelphia	80	Yes	1.01	1.10		
66. Potterville	5	Yes				1.20
67. Reading	6	Yes	.61		.94	
68. York	3	Yes				1.00
RHODE ISLAND.						
69. Bristol	60	Yes				1.15
70. Providence	5	Yes	.72	.86		
71. Pawtucket	6	Yes				1.25
72. Peacedale	4	Yes				.80
73. Warren	4					.95
74. Woonsocket	20	Yes				.98
VERMONT.						
75. Bellows Falls	11	Yes		.90		
76. Bennington	3	Yes		.63		
77. Rutland	3	Yes				2.10
WISCONSIN.						
78. Berlin	20	Yes			.92	1.44
79. Eau Claire	17	Yes	.33	.45		
80. La Crosse	15	Yes		.47		
81. Marinette	10	Yes			.40	.50
82. Portage	7	Entirely		.50		

TECHNICAL EDUCATION IN GERMANY.[a]

Since the close of the Franco-Prussian war the development of Germany has been remarkable. Hamburg has risen from the sixth largest port in Europe to nearly the first; German cottons are sold in Manchester, German steel in Sheffield and Leeds, German silks in Paris, and "Made in Germany" is a familiar mark to us. From 1875 to 1895 the population increased from 45,730,000 to 52,250,000. The working energy, during the same period, increased from twenty-five to more than forty-six million foot-pounds daily, or about four times as fast as the population. Between 1889 and 1896 the exports from Germany to China

[a] Abridged from a paper on the need of technical education, by Prof. Victor C. Alderson, dean of the Armour Institute of Technology, read before the Chicago Literary Club, October 20, 1902, and printed in Nature February 12, 1903.

increased 86 per cent; to Japan 92 per cent. The tonnage of German vessels trading with these countries has trebled since 1886. The number of German steamers in 1871 was 150; in 1897 this number had increased to 1,125. During the same period the tonnage increased from 82,000 to 900,000. That Germany has been successful in a commercial way during the past thirty years is not to be denied. Her success can be traced to her belief in the industrial value of scientific research and to her fostering care of the technical education of her people.

From an examination of special industries we can obtain a clearer idea of this influence. Consider the beet-sugar industry. In 1840 154,000 tons of beets were treated, yielding 8,000 tons, or 5½ per cent of raw sugar. In 1899, with improved scientific processes, 12,000,000 tons were crushed, yielding 1,500,000 tons, or 13 per cent of raw sugar. This increase from 5½ to 13 per cent is the direct result of the work of technical men in control of the industry. Not only is Germany no longer dependent upon the West Indies for her sugar, but in one year she has sold Great Britain $50,000,000 worth. The manufacture of alcohol from potatoes is another lucrative field for German technologists. The cost has been reduced to about 25 cents per gallon, and experiments are in progress to determine its efficiency as fuel on steamers. The manufacture of artificial indigo by a chemical process was discovered in Germany in 1866. Less than 40 workmen were then employed; now more than 6,000 men and a staff of 148 scientific chemists are employed in the industry. The natural indigo is almost driven out of the market. They have also discovered a method for obtaining from steel processes ground slag which is used as a fertilizer, and England, although she produces quite as much steel as Germany, has become a good customer for the article. Recently there came the discovery by a chemist named Giebler of a process of hardening steel which makes it, it is said, 14 per cent stronger, 50 per cent lighter, and one-third less costly than the Krupp or Harvey steel. Twenty-five years ago the English and French makers of scientific instruments of precision were far in advance of the German. However, through the organization of the Reichsanstalt, an institution for original research and the standardizing of instruments, supported by the Government, Germany has become the manufacturer of the best scientific instruments in the world. The value of her exports in this line is nearly $2,000,000, three times what it was fifteen years ago, and the work gives employment to 15,000 people.

The Germans are fully alive to the necessity of being well prepared to engage in the struggle for industrial supremacy. Prince Bismarck once said: "The war of the future is the economic war, the struggle for existence on a large scale. May my successors always bear this in mind and take care that when the struggle comes we are prepared for it." Bismarck's behest has been heeded. The Germans, by dint of long and thorough preparation, are ready for an economic war. For more than thirty years they have been preparing, and we can see in all directions the steps that have been taken to improve the technical sides of education, so as to produce men who are capable of carrying Germany to the front in this industrial and commercial struggle. The system of German technical schools comprises first a group of Technischen Hochschulen, situated at the capitals of the German States, like those of Berlin, Dresden, Munich, and Carlsruhe. These are of the very highest grade, admitting only students who have completed a Gymnasium or Realschule course of study. They have without exception developed gradually from mere trade or building schools. Most of them were founded in the twenties and thirties of last century, and one—the Charlottenburg—was founded as early as 1799. These schools are all beautifully housed, have superb equipments, and are doing a high grade of professional engineering work. Next below them in educational rank comes a great number of trade schools, like the textile school of Crefeld. These trade schools are located at the center of

the industry to be benefited and are distinctly utilitarian in character. Besides these, there are many continuation and manual training schools. So numerous are these specialized schools that a German can always find one in which he can learn the latest and best principles, devices, and methods of any trade or profession he may desire to follow. Add to all these the latest German innovation of commercial high schools and colleges of commerce, then wonder, if you can, why German competition is so keen and why German trade and industry are reaching every market the world over. The Germans have discovered that the secret of success in trade and industry depends upon education; not upon the education of the library and cloister, but upon the education of the laboratory, the shop, and the modern lecture room.

REPORT ON DRAWING IN WESTERN NORMAL SCHOOLS.

[Adopted by the Western Drawing Teachers' Association May 9, 1902.]

In the territory represented by the Western Drawing Teachers' Association there are 15 States, Wisconsin, Minnesota, Iowa, Illinois, Michigan, Indiana, Missouri, California, Oregon, Washington, North Dakota, South Dakota, Kansas, Colorado, and Texas. In these States there are 40 State normal schools.

Your committee sent to the presidents or principals of these schools a circular letter, reading as follows:

At the last meeting of the Western Drawing Teachers' Association, held April 23 to 25, 1901, at Rock Island, Ill., a committee was appointed to investigate conditions governing the preparation of normal students for the teaching of drawing. It was thought advisable to gather statistics from the normal schools of the West, with a view to bringing valuable information before the association. The association hopes that there may be a united effort among public school workers to raise the standard of art instruction, in order that teachers may be better prepared to handle a subject which has become vital in American education. Will you aid us in our work by filling out the inclosed blank?

The questions asked on the circular blank were the following:

1. Is drawing taught in your school?
2. Is it an obligatory study?
3. During how many years is it required?
4. How much time per year is devoted in your school to the subject?
5. What is the character of the instruction?
6. Is your drawing department well equipped?
7. Have your graduates found themselves suitably prepared for teaching drawing when becoming teachers?
8. What has been the art training of your teacher of drawing?
9. What salary is paid the drawing teacher?
10. How many normal students does the teacher of drawing instruct?
11. Does she also have charge of her subject in a practice school?
12. Will you send an exhibit of drawing to the next meeting of the Western Drawing Teachers' Association, at Minneapolis, May 7 to 9, 1902?

Response was made by 34 of the normal schools; the remaining 6 could not be heard from. Your committee regrets that it is unable to bring before you the complete information that it considers desirable. Many schools did not seem willing to answer all the questions asked. When a normal school principal stated that he was not permitted to say what salary was being paid the drawing teacher, there was nothing further for the committee to do.

To know that thirty-two periods are being devoted to the teaching of drawing in a school, when the principal refuses to state the length of a period is not very satisfactory. When asking what the training of the supervisor has been, to receive the answer that it has been good is not altogether comprehensive.

However, notwithstanding the many difficulties encountered, many principals

seemed anxious to further the work of the committee and to express interest in and appreciation of the work of the association. We feel that the information obtained is sufficient to be of much interest and value to the association.

In the 34 normal schools heard from drawing is taught. It is an obligatory study in all but two—Cape Girardeau, Mo., and Terra Haute, Ind.

The time over which work in drawing extends varies from six weeks in Moorehead, Minn., to three years in Houston, Tex. Of 21 schools stating the number of hours devoted to the subject, the average is one hundred and thirty-six hours. In 4 schools students have less than eighty hours' training. The greatest amount of time devoted to the subject is three hundred and twenty hours in the course at Los Angeles, Cal.

Opinion seems to differ widely as to what constitutes a good course of study. One normal school states: "We teach art, not the old-time magazine and perpetual model drawing." Another states: "Our teachers are not artists, and the elementary work we do is not art. We endeavor to prepare our students to use drawing in elementary work." A few of the outlines of the courses of study in drawing seem to the committee comprehensive and well ordered, but most of them not good and some decidedly bad.

Regarding equipment of 32 schools, 12 consider themselves well equipped for art study, 13 moderately so, and 7 not equipped.

In answer to the question, "Have your graduates found themselves suitably prepared for teaching drawing when becoming teachers?" of 27 schools willing to answer, 14 find that they are prepared, 3 fairly well prepared, 2 not prepared, 3 not often prepared, 4 can not tell, and 1 hopes that they are.

Of the training of teachers, 9 have received instruction at Pratt Institute, 3 at the Massachusetts Normal Art, 1 at Chicago Art Institute, 1 at the Cooper Institute, 1 at the Columbus (Ohio) Art School, and 1 at the New York Academy of Design. Of the remaining 11, regarding whom answers were received, 3 have had extensive studio work, 7 have had only the training afforded by the regular normal schools and colleges, and 1 is "a 19-year-old girl," a born genius, picked up at home.

The salaries paid drawing teachers in normal schools heard from are as follows:

One teacher receives $2,000; one, $1,530; three, $1,300; three, $1,200; five, $1,100; five, $1,000; one, $950; five, $900; one, $850; four, $800; one, $700; one, $600; two, $500, and one, $350.

In 16 of 35 schools the salaries are below $1,000.

In 26 schools the drawing teachers have charge of work in a practice school and in 5 schools instruct the normal students only.

The number of students being instructed in the various schools varies from 10 to 500. At present in 30 schools there are 5,067 prospective teachers receiving art instruction.

After the compilation of the above a list of 40 supervisors was made representing the territory of the Western Drawing Teachers' Association. A circular letter was addressed to these asking if they found the graduates of State normal schools, as a rule, fitted to teach drawing efficiently.

Thirty-one answers were received. Four teachers spoke words of commendation:

I find that the teachers who have had the training of the normal schools of the State are the most efficient in the corps in my line of work.

IDA M. CRAVATH, *Madison, Wis.*

I will say that I have found normal graduates well fitted to teach drawing, but I must add that my experience is limited, being only in connection with the Los Angeles State Normal, of California.

MAY GEARHART, *Berkeley, Cal.*

I find graduates of State normal schools better prepared to teach drawing than those without normal training. The training in normal schools is inadequate, however, and the graduates themselves feel it so. They speak of the lack along creative lines in their development.

GRACE C. SYLLA, *Akron, Ohio.*

The matter, according to my experience, is wholly relative. The teachers we receive from the State normal schools are so much better prepared to do intelligent work without drawing outlines than those received from other sources that we are very thankful to think that the course is somewhat adequate. Though they may not be able to draw, they are able to approach the subject with some intelligence. I think I may safely say that our normal graduates are as well prepared to teach drawing under a good supervisor as they are to do most of the other work of the school, and the condition is improving every year. That there is large need and room for such improvement goes without saying.

MARY G. DIEM, *Winona, Minn.*

Supervisors from the following cities reported that they did not find State normal graduates fitted, as a rule, to teach drawing: Youngstown and Dayton, Ohio; Detroit, East Saginaw, and Bay City, Mich.; Indianapolis, Evansville, Fort Wayne, Marion, and South Bend, Ind.; Eau Claire, Oshkosh, and West Superior, Wis.; Minneapolis and Stillwater, Minn.; Burlington, Iowa; Colorado Springs, Denver (Dist. No. 17), and Pueblo (Dist. No. 1), Colo.; Joplin, Mo.; Alameda and Oakland, Cal.

We quote briefly from some of the letters as follows:

I think that I can safely say in my seven years' experience as supervisor I have never found a normal graduate who was prepared to teach the subject intelligently.

My heart aches with each succeeding September as I realize afresh how poorly prepared our otherwise good teachers are to handle the subject.

I most sincerely trust that the day is not far distant when the teachers' (prospective) preparation for and ability to handle art as taught in our public schools shall be subject to as severe tests and requirements as is any of the other branches.

MARGARET SHEARDOWN, *Calumet, Mich.*

We have had a number of graduates from various normal schools, and none have been able to teach drawing successfully. In fact, their knowledge of the subject is so limited that it seems ridiculous to say that they have studied art.

Hoping that this state of things may be overcome in the near future,

ALICE E. HALL, *Fort Wayne, Ind.*

Do I find graduates of State normal schools, as a rule, fitted to teach drawing efficiently? No; it has not been my pleasure to have so fortunate a corps.

So many of the high schools do not have drawing; then, too, the rural schools are without. Consequently the normal students are poorly prepared to receive sufficient training within the twenty weeks' allotted art course.

Allow me to plead less methods in normal art work, perspective and freehand work in light and shade and color. The supervisor will supply help in methods and the proper adjustment to grades, but finds uphill work with the normal graduate who puts in her time with discussions and methods. Give me the teacher who can sketch a little, has some idea of correctness of light and shade, knows simple rules (and applications thereof) in perspective, and her work proves efficient.

Sometimes she comes from the normal so full of cubes and prisms and drawing books that it is hard to get her to dare to do free work.

If every normal demanded an examination, be it ever so slight, in drawing, it would force the drawing into the high schools and set the "districts thinkin'." Of course all normal schools would have to agree on an examination, or else the students might vote against it and attendance might suffer.

ANNA EARL GRADY, *Superior, Wis.*

In answer to your question I can give an unqualified "No." Not only are they unqualified, but some are prejudiced against the work and seem to have no conception of what art education desires to do for the child.

A very large part of the teachers with whom I come in contact are from private normals. While they are just as poorly qualified, they are not prejudiced. I think the work should not stop with the State normals, but should be carried into all schools where teachers are trained.

Call on me for any aid that I can give along this line.

J. L. MASSENA, *Marion, Ind.*

Almost without exception I find normal-school graduates poorly prepared to teach drawing. Indeed, I find it impossible to have them teach in the schools where I supervise without asking them to attend special meetings for instruction for the best part of a year. Almost invariably they are deficient in elementary observation and expression. Generally the work they show as having been done at normal schools would not be accepted from our high-school pupils. Their deficiencies seem to be the result of too little time devoted to the subject and superficial instruction; and yet, as Cabrill Compayro says in his report on the educational exhibit of the United States at the Paris Exposition, "Drawing is king in the schools of America."

CHAS. M. CARTER, *Denver, Colo.*

In my seven years' experience in Indianapolis I have found only two graduates of State normal schools who were fitted upon entering our schools to teach drawing.

WILHELMINA SEEGMILLER, *Indianapolis, Ind.*

In the last annual report of the superintendent of the Minneapolis schools to the board of education a report from the supervisor of drawing, Miss Bonnie Snow, is published. In this the statement is made:

We are doing all we can to teach the children in the grades how to draw, how to appreciate and enjoy nature and art; but we are doing very little in our high schools to strengthen the teachers of the next generation to know more about the technical side of the subject. In this we are open to criticism. The normal schools in their turn are perhaps more directly responsible for the woeful lack of knowledge of drawing on the part of their graduates. The average normal-school course of study was planned, apparently, years ago, before drawing and its related art subjects entered so vitally into the course of study of the average public school. Hence their students, coming to them, it is true, in ignorance of the subject, are expected in six weeks' or at most in three months' time to learn enough about it to fulfill the requirements of the average school curriculum. It is because I feel so positive that the trouble lies in the lack of preparation on the part of the teacher in this line of work that I have sought to better the conditions so far as lies in my power. A very large part of my time is devoted to the teaching of teachers—doing practical normal-school work, instead of depending on pure supervision. I do not speak of this in a spirit of complaint, but only to put before you a truthful statement of the conditions under which we work.

From lack of experience in working with normal-school graduates the supervisors of Decatur, Ill.; Duluth, Minn.; Davenport, Iowa; and St. Joseph, Mo., reported that they were unable to answer the question.

To sum up, two supervisors find graduates fitted to teach drawing, one as well fitted as to teach most other things, one more nearly fitted than if not instructed, four can not say, and twenty-three say "No," most of them very emphatically.

As the conclusion of its investigations your committee reports that it believes drawing is not being well taught in the majority of Western State normal schools, and that in consequence superintendents are finding it very difficult to secure the services of well-instructed teachers, supervisors are expending much unnecessary force in training normal graduates, the graduates themselves have much difficulty and disappointment when they find themselves almost or wholly unfitted to teach a required subject, and large numbers of children suffer while teachers are becoming, under much hardship, prepared to teach a subject that has become a vital and established part of American education.

Your committee feels that conditions will not very materially improve until normal schools require some preparation in drawing before students are admitted

and until teachers' examinations are established in drawing, as in other subjects, by the cities and towns.

When superintendents of schools demand that teachers entering their schools be prepared to teach drawing as other subjects, there will be more time devoted to the subject in the normal schools, better equipment, much better salaries paid the drawing teachers, the drawing courses enriched in the high schools, and a better teaching and understanding of art throughout the West.

Respectfully submitted.

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CHAPTER XIV.

THE EDUCATIONAL PROGRESS OF THE YEAR 1901-02.

By WILLIAM R. HARPER,

President of the University of Chicago.

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In attempting a survey of the progress of educational work during the period of a single year, one quickly discovers three or four things: (1) That such a survey will contain no adequate presentation of the mass of material which may rightly lay claim to be included—a volume of hundreds of pages being hardly sufficient, much less a paper of forty or fifty minutes; (2) that no sharp line can be drawn between different years, since the more important events really assume the nature of movements, and most of them cover a period of several years; (3) that prejudice against taking forward steps in education has been greatly diminished, and skepticism as to the value of the old conventional usages in schools and colleges is largely on the increase; (4) that, whatever may have been true in the past, no very close connection any longer exists between the educational movements of England and the Continent and those of our own land. At all events, we may no longer be counted merely as followers; in some respects we may, perhaps, claim the position of leadership.

TRIBUTE TO COL. F. W. PARKER.

In the field of elementary education the most significant single event—that which has touched the largest number of persons and affected them most keenly—has been the death of Col. Francis W. Parker. As in the case of most men who have accomplished much, the greatness of his work was not fully apparent until he was taken away. The universal appreciation of his leadership, the universal testimony to the greatness of his career, and the universal mourning over his sudden death, together constitute the most striking event of the year. That he should be taken away at the very moment when he was about to enjoy the fruition of a lifetime's work, and that he should not be permitted to enter the buildings on whose plans he had spent so much time and energy, was indeed pathetic; but that he had built foundations broad and strong for future work in the field of elementary education; that he had made noteworthy contributions to the cause of public school education; that, indeed, he was one of the great leaders of the last quarter of a century—is everywhere acknowledged. Although he was an officer of the University of Chicago, I may be permitted to say these things in view of the fact that his connection with the institution was so brief; and I am sure that the general educational public will approve the policy adopted by the university, to go forward with the work which he established and to undertake the accomplishment of this work in accordance with his purpose and his spirit. To this is pledged the faculty of the school of education, so closely connected with him personally and officially, and to this is pledged also the new director,

Mr. Dewey. It is not too much to expect that this faculty shall develop, on the foundations which have already been laid, a great and noble institution from which good and only good shall emanate for the public school system of the country.

CURRICULUM OF THE COMMON SCHOOL.

The curriculum of the common school in these last years has greatly expanded, and now includes much material drawn from the departments of natural science, drawing, art, manual training, as well as from those of history and literature. This material is so various in its character and so large in its amount as to produce "a stuffed condition of the school course which occasions uneasiness and distress." The "new education" has given us certain problems that urgently demand solution. It is generally understood that these problems group themselves under two heads: (1) How to select in each department of study the most important topics for treatment, and (2) how to bring these various departments of study into such relationship with each other that each will contribute to the other, and that waste shall be reduced to a minimum. So far as I am able to gather the facts, it may be said that no new principles or theories have been projected during the past year. Leaders in the new education have concentrated their efforts upon its practical side. In many quarters there has been conducted quiet investigation of the problems just mentioned. The educational theory and practice, which is based on the teachings of psychology and the history and development of the culture of the race, is becoming more and more generally accepted; but it requires just such critical and scientific study as that which is being given it in educational circles throughout the various sections of the country. The changes that have already come are almost greater than can be calculated. It is essential, however, that the severest tests be applied, and that the most rigid scientific criticism be encouraged.

TRAINING IN ÆSTHETICS.

No one can fail to see the increasing acknowledgment in the modern education of the child of the importance of training in æsthetics. In more than one great center there has been manifested a growing desire to decorate and beautify the buildings. It has been suggested that perhaps in no former year has greater interest been taken in the architecture of the school buildings than during this year. The work accomplished in this regard in the cities of Boston, New York, and Chicago deserves especial mention.

RAISING THE NORMAL SCHOOL STANDARD.

It is true, perhaps, that the teacher is beginning to recognize more clearly the importance of study for the sake of information as distinguished from that of method study. This difference is the old bone of contention between the normal school and the college. A radical step, and one which seems to acknowledge this general principle, has been taken during the past year in the city of Chicago. The city normal school, whose function it is to train teachers for the elementary field, has advanced its course of study to three years, and has made its requirement for admission coordinate with that of the leading colleges in the country. This step will surely be followed by other normal schools. In establishing and maintaining such scholastic standards the public normal schools join with the schools and departments of education in the colleges and universities to strengthen the equipment which has hitherto seemed sufficient for the corps of elementary teachers. The old requirement was that of the high school curriculum, with the adding of one or two years of professional training. This means that larger familiarity with the subjects taught—in other words, broader scholarship—will

henceforth be demanded. The most serious drawback to the advancement of the work in the elementary schools along the lines of the educational theories of recent times has been the utterly inadequate scholastic training of the teachers who undertook professional investigation. The need of broader scholarship has nowhere been more deeply appreciated than among the teachers themselves, and in testimony of this statement we need only recall the interest and support of that great multitude of elementary teachers who spend a part of their vacations in the summer schools and colleges. The encouragement of summer study by the superintendents of the great cities, and the avidity with which such opportunities have been seized, present a situation heretofore unknown, and one from which the greatest possible results may be expected. It is not method study simply that these teachers hunger for; it is rather information on special subjects in which they have discovered their weakness.

LARGER FREEDOM FOR THE TEACHER.

This suggests another characteristic of the teacher's work, which stands to-day in marked contrast with that of even recent years. I have in mind the larger freedom accorded each individual teacher; freedom from the old conventions and ideas as to what constituted curriculum as well as method. The breaking up of these formal conceptions has resulted in a spiritual liberty formerly unknown and capable of producing the largest efficiency in the work of the individual teacher. The work is no longer so mechanical. The presentation of these new subjects compels variety of method, and it is a noteworthy fact that with this greater freedom from conventional treatment there is a growth of mind and spirit which gives an inspiration and arouses an enthusiasm incomparable with that of the old régime. There are some who think that this freedom of the teacher has had its origin in the efforts made within these later times to adjust the work of the school to its environment; to have the child study things instead of studying about things; to bring him into contact with real life instead of that which represents life. It has seemed to me that all of this is strictly parallel with that freedom of the teacher which is found in elective work as compared with work prescribed; and while in the latter case there will always be prescribed work, and in the former case we must recognize the necessity of a certain amount of rigidity, in both movements we are tending toward larger spiritual as well as intellectual liberty.

KINDERGARTEN WORK FIRMLY ESTABLISHED.

The friends in the stronghold of kindergarten work, Chicago, have been greatly exercised lest a backward step should be taken in this important field. At times it seemed to the public that the whole department of kindergarten work was to be abandoned in the city of Chicago for lack of funds. It is probable that nothing could have done more to arouse the public interest in the subject than the danger which was thought to exist. It may be said with confidence that at no previous time has the position of the kindergarten work been more strongly established, and to my mind this constitutes one of the most important facts in the educational history of the year. The place of the kindergarten has been established in the minds of the great majority of Chicago citizens and all future budgets must contain liberal provision for this division of educational work. The superintendent of Chicago schools has strongly favored the placing of kindergarten work in the schools, especially in those of the poorer districts. In arrangements made for next year the same number of schools as for last year has been retained, but their effectiveness has been doubled, so that twice as many children will be cared for.

CENTRALIZATION OF SCHOOLS.

Much may be expected from the campaign now being made in Michigan in behalf of the centralized rural school. Strong public sentiment has been aroused, and while hitherto the State grange has opposed every movement in this direction, a large part of its membership has come to advocate the proposed change. The district schools will be great gainers from this movement.

AGRICULTURE IN RURAL SCHOOLS.

An interesting development in connection with the rural schools, especially in the States of Wisconsin and Missouri, is to be noted in the introduction of instruction in agriculture. This, of course, corresponds to the introduction of industrial or manual training in the city schools. It is an application of the now generally recognized principle of bringing the school work into close touch with the home life of the pupil; and it may safely be predicted that no more important application of the principle has yet been discovered. The nature of the subjects thus introduced and their pedagogical possibilities combine to make this step one of marked significance in the history of education. The complete reports of the revision of the public-school system of Ohio have not yet been published, but from private information it may be said that a most rigid revision of the system has been adopted, and that the Ohio public-school system may henceforth take its place side by side with that of other States which have in these last years made great progress.

SUPERINTENDENT'S TENURE IN CHICAGO.

In addition to the significant steps taken by the board of education of the city of Chicago in enlarging the curriculum of the State normal school from two years to three, mention must also be made of the even more significant action involved in giving the superintendent an appointment for five years instead of one. This action, coupled with the general policy adopted in connection with the appointment of teachers, the large number of new buildings provided for, make the past year one of the most eventful in the history of the Chicago schools. It is generally recognized that these forward steps are in accordance with public sentiment, and are the outgrowth, in large measure, of seed sown in former years. The splendid battle fought in 1899 and 1900 by Mr. Andrews, now chancellor of the University of Nebraska, has secured results which but for this battle would have been impossible.

THE SOUTHERN EDUCATION BOARD.

The Southern Education Board, which was the outcome of the Capon Springs conference held in Winston-Salem, N. C., in 1901, has already shown its strength and its power to accomplish good results. For the first time in the history of Southern education a comprehensive undertaking has been launched founded upon true principles. That educational work in the South should have to do with the education of the white man as well as the negro; that it should be worked out, for the most part, by Southern men; and that it should begin with the public school in the South are principles which appeal directly to the common sense of every intelligent thinker. It is confessedly true that the Southern States have not received their proper share of the great gifts for education. Twenty-five per cent of the population of our country should receive a larger proportion than 3 per cent of the general contributions to education. The Southern board will surely have the sympathy and cooperation of every friend of education in the North, and it is a source of satisfaction that in the membership of the board we recognize the names of men who are known in the North as well as in the

South for a true interest in sound education. The distinctive interest of this board, as has been officially announced, is in the public school, and it is particularly concerned in those forms of education "which look toward thrift, industry, and usefulness. This fact will guarantee, in part at least, the adoption of the principles of the new education. Dean Russell, of the Teachers College, New York City, in a personal letter makes this statement:

We have been changing our conception of what education is. Formerly the school aimed very largely at *learning*. Now we are including *doing* as an element in a good education that should perhaps be as prominent as the learning. We are stimulated in this direction by the Southern board above mentioned, for they stand very strongly for industrial education, in which a student consumes perhaps half of his time in the study of books and in reflection and the other half in *doing* or *making* something. In my opinion this tendency of the Southern board and of the Southern schools is reacting powerfully upon the conception of education in the North. In fact, for several years Hampton has been a most ardent advocate of an education which gives about equal prominence to learning and doing, and in this respect has been in advance of Northern institutions. We seem to be gradually accepting the Hampton view in the North, although we have been approaching the same idea from another side. The nature of the child, of course, requires a large amount of motor activity, and the demands of society also favor a kind of education which includes the execution of one's ideas. These latter two facts therefore, as well as the influence of the Hampton and Tuskegee schools, have led us to make a great advance in favor of more doing, making, executing, in the common schools.

As a result of this advancement, the three R's are not crowded out, but they are growing relatively less prominent, and much greater emphasis than heretofore is being thrown upon proper materials with which to work with the hands in the schoolroom. Just as the kindergarten has given much study to the gifts—that is, to the materials out of which the children shall make all sorts of objects—so the elementary school-teachers are being stimulated to make an extensive study of the proper materials to be used for construction of objects in grade work. Thus we are debating about the extent to which clay, paper, pasteboard, wood, bent iron, etc., shall be used, and this will probably be a more prominent topic in the future.

THE GENERAL EDUCATION BOARD.

A still more recent forward step in the interests of Southern education is the organization of a body called the General Education Board. The function of this board is entirely distinct from that of the Southern education board. The latter exists for the purpose of developing an educational sentiment. The former board has been organized to receive, hold, and dispose money for Southern education. The board has already at its command a fund of more than a million dollars. Its methods of work are those born of large experience, and its breadth of sympathy and its wisdom have already been satisfactorily administered. No stronger agencies, no agencies more greatly needed, have been established in any sphere of work, educational or industrial, in this last year than the agencies named—the Southern Education Board and the General Education Board.

CURRICULUM OF THE SECONDARY SCHOOLS.

In connection with the curriculum of the secondary schools, four or five tendencies may clearly be noted. Some of these are progressive; some of them may, perhaps, be regarded as characteristic of movement backward. In the latter class belongs, in the opinion of the writer, the disposition to give up provision for instruction in Greek. That there exists such a disposition can not be denied. It seems to grow out of the desire to make way for more practical subjects; but the fact is that as many people desire Greek to-day as at any time in the past. The more practical subjects are called for by another class of students. The introduction of business and industrial courses is rapidly increasing the number of high-school students, but these new students are in addition to those who other-

wise would take up high-school work. It is difficult, of course, in most communities to make provision for a subject in which the class is ordinarily so small, but by proper arrangement of courses such work can be provided for in connection with the Latin at a minimum of cost. And especially in this great Western country should every effort be made to conserve those studies which represent the ideal in thought and life. Principals and teachers will do well to read that most interesting paper, prepared just a year ago, on "The social need of Greek," by Mr. E. Benjamin Andrews, in which he shows so conclusively that "while a majority of educated persons in a society may be ignorant of Greek, all can not be. A remnant large enough to diffuse the cultivation proceeding from it must know the tongue, and that at first hand." His conclusions were, in part, as follows:

1. Social, and not merely individual, needs should be borne in mind in all large educational planning.
2. All believers in a rich and rounded social education should feel, think, speak, and act appreciatively toward Greek study.
3. Colleges and high schools with reasonably ample facilities should be encouraged to continue teaching Greek if already doing so; if not, to begin.
4. Since the excellence of the Greek discipline is less obvious than that of most studies, teachers should see that pupils likely to profit by it in a high degree at least consider this discipline, and should advise those pupils, if they wish, and such a course is possible, to elect and pursue Greek.
5. Pupils in Greek who show special ability and taste for it should be urged to the utmost proficiency in it.

COMMERCIAL AND INDUSTRIAL COURSES.

A second tendency, already noted, is the introduction of courses of instruction relating to commercial and industrial subjects. The passing year has seen great strides forward in this particular. Is this phase of secondary work moving perhaps at too rapid a rate? We must not forget that years are required to develop a new subject for practical educational results. Are we throwing aside those subjects whose educational value has been tested beyond question for the sake of introducing new subjects which, at all events, for a long period must prove to be of lesser value? The present writer has no desire to make objection to the introduction of new subjects, provided such introduction is accomplished cautiously and judiciously. Objection is made only to the adoption of too large a number of subjects, for which good methods have not yet been found; the promiscuous and miscellaneous use of anything that meets the demand of a passing craze. In any case, in meeting the demands thus made, redoubled effort must be put forth to work out the methods by which this new material may be adapted to the needs of a true education. It must follow, as a matter of course, that if elementary instruction draws material from the industrial, political, commercial, and agricultural realms, such material must also find its place in secondary instruction. But the problems connected with its introduction are not such as to find easy solution; and it may fairly be questioned whether, up to this time, the results achieved have been in any sense satisfactory. I would not suggest that this work is not to be continued, but it must be acknowledged that the most urgent need exists for caution and for a scientific study of the questions involved.

COLLEGE ENTRANCE CERTIFICATES AND EXAMINATIONS.

The third tendency which during the present year has attracted special attention is the substitution of the certificate system for examinations in connection with college entrance. To those of us who are familiar with the working of this system in the West this proposition has in it nothing that is new. It would seem, however, that this idea, born in the West, is making its way slowly but surely into the Eastern sections of the country. The indications are quite clear that

before long the certificate system in one form or another will be adopted by Eastern institutions. An important step in this direction has been taken within the year by the United States Military Academy, at West Point. In accordance with recent regulations made by its faculty and approved by the Secretary of War, candidates who are graduates of high schools will be accepted for membership in the first year. The regulations of the Military Academy are more liberal than they should have been made, inasmuch as graduates of three-year schools as well as those of four-year schools are eligible for admission. A modification of these rules will be adopted.

The success of the college entrance board of the association of the Middle States and Maryland has been greater than could have been anticipated. The work of this board is an intermediate step between the Eastern plan of entrance examinations set by each college for itself and the Western plan of certificates. It is openly asserted by some of the strongest adherents of the college entrance board that its work is paving the way for the adoption of the more general certificate plan. In this connection I might quote from a letter written me by the principal of a prominent New England academy: "The most important event of the year in secondary education has been the expansion of the work of the college examining board into New England, whereby at present all the New England colleges, excepting Harvard, will receive the college board certificates in place of their own examinations."

At several meetings of the high school and college teachers held last autumn in New England to discuss the question of joint boards of examination for entrance, such as the Middle States have adopted, this movement, though strongly urged by Harvard University and by Yale University, was overwhelmingly defeated. On the other hand, a motion made to revise, coordinate, and extend the certificate system met with great approval.

It is thought by some of the ablest representatives of secondary education in New England—among others Principal Coy, of the Hotchkiss School—that the experience of the past year includes as an encouraging feature the change on the part of the colleges to revert to the old standards of requirements which laid emphasis upon power and discipline rather than upon technical knowledge. It is believed that a beginning in this direction has already been observed, and that there exists a widespread conviction that such a course is required by sound doctrine. Certain Western institutions have laid emphasis upon this point for several years. It is gratifying to note that the recognition of this principle is gaining ground in the New England colleges. The principle involved is one essential to the best interests of secondary education, and unless this principle is adopted unreservedly, secondary training will not only lose a large share of its value, but in many cases prove distinctly injurious.

ELECTIVE WORK IN SECONDARY SCHOOLS.

The tendency toward the introduction of elective work in secondary schools has unquestionably increased during this past year. In so far as such election is virtually an arrangement of studies in groups of closely connected subjects, no exception to it may be taken; but to the proposition that the average secondary student is able, even with the parents' help, to select his subjects, and that such selection, because it is an election on his part, is preferable to the grouping of subjects which the best experience has approved, the writer desires to enter earnest protest—a protest based upon experience with students of a still maturer age. It has been my experience, after careful study of the facts as brought to light in the operation of different systems, that the average boy or girl in the freshman or sophomore college year exhibits an utter inability to make wise decision between various courses of instruction. The choice will be determined, in a majority of

instances, by the hour of recitation or some statement concerning the course by a fellow-student. Least of all does he have in mind the relationship of the course to the work which lies before him. I am therefore strongly of the opinion that unless the choice of subject in secondary work is practically controlled by the principal, election will prove injurious rather than helpful. Much is said, in connection with the open elective system, both in secondary school and college, of the advice given by instructors and the assistance rendered by parents, but practical experience goes to show that no one is more easily influenced by whims than the parents, and that too frequently the instructor is a specialist who has little interest in or knowledge of subjects outside of those with which he himself is directly connected.

DEMAND FOR SPECIAL TEACHERS.

The rapidly growing demand on the part of high schools and academies for teachers of athletics, manual training, and domestic science is significant of important educational tendencies, and the demand is no less significant than the fact that at the present time teachers in these specialties are so few that the demand can not be met. It is no longer possible for a teacher of Latin or a teacher of mathematics to perform service in these new departments. Not only is the amount of work called for too great, but the training required is of so special a character that a teacher is not fitted to perform the work who has not received special instruction. It would be well for the cause of secondary education if some of those teachers who to-day are preparing themselves for the teaching of English or Latin or mathematics were to consider whether they might not be more certain of a strong position if their special training should be made in one of these more practical subjects.

HIGHER STANDARD FOR HIGH-SCHOOL TEACHERS.

An interesting feature of the year that has closed has been the not infrequent announcement of the appointment in secondary schools of a man or woman holding the degree of doctor of philosophy. The number of high-school teachers having the full college training has been greatly increased during the year, at least in Western schools. There is, to be sure, some danger that the newly fledged doctor of philosophy will have become so great a specialist as to be unfitted to teach the elementary courses required in the high school. But this is by no means so true of the doctor of philosophy trained in an American institution as of the doctor of philosophy trained in a foreign university. American universities, while laying equal stress upon research, do not fail to keep before the mind of the candidate for the doctorate the practical side of life and teaching, and it will mark a splendid point of realization in the history of secondary work when a proportion at least of the teachers in any secondary school shall be doctors. Side by side with this point is that very closely related demand which calls for special pedagogical training of college graduates who desire to become high-school teachers. It appears, on the one hand, that the average secondary teacher shows a remarkable lack of broad, liberal knowledge. Men, as a matter of fact, go through our American colleges without securing accurate knowledge in any subject which they study, and the close of their college course finds them in possession of no really solid mass of facts to build upon. It is maintained by some of our secondary-school leaders—for example, Dr. Julius Sachs, of the Collegiate Institute in New York City—that this statement holds good of work in the classics as well as in subjects like history and modern languages. It is the testimony of the teachers in the normal schools and teachers' colleges that they are unable to take up the discussion of methods of teaching in secondary subjects because they find themselves immediately confronted with the necessity of teaching the subject-matter. This difficulty, I maintain, will never be adequately met until those who plan for

themselves a career in secondary teaching have done that work in a particular department which is now ordinarily done for a doctor's degree. On the other hand, it is equally true that many teachers are found to possess the necessary scholarship who lack the knowledge of pedagogical principles that is needed for the simplest kind of instruction. The best teachers, in my experience, are often those who at first show no special ability for teaching, but have given themselves to the study of the principles of teaching and have overcome difficulties that at first seemed insuperable. In both directions, therefore, the movement forward is encouraging.

TREND OF HIGH-SCHOOL DEVELOPMENT.

A remarkable fact in connection with secondary schools is their phenomenal growth. I do not stop to present the statistics, for these have been indicated on more than one previous occasion. If it is true that the number of high-school students has doubled within the last decade; that the great majority of all students who enter college now come from the high schools (it is an interesting fact that even in New England, Dartmouth College should receive from high schools more than 100 of the 141 members of its present junior class); that the number of high schools is increasing rapidly in every State, and that the scope of their curricula is growing almost at a pace with the increase in numbers, the time has surely come when this factor in our educational machinery deserves greater consideration than it has hitherto received. Wedged in between the great common-school work and the higher work of colleges and universities, its prominence in the past has not been commensurate with its importance. The high-school curriculum can not longer be regarded as one to be adjusted as a preparation for college. It may be questioned whether preparation for college is the most important subdivision of high-school work. In any case these schools have come to occupy a unique field independent of higher institutions. In many sections of the country the work is coordinate with the work of the smaller colleges, and the preparatory schools connected with the smaller colleges no longer occupy their former place of importance and dignity. In fact, the high school is rapidly coming to be a rival of the smaller college itself. In some States the high school now does the work of the freshman year, and even some of the work of the sophomore year, this being recognized and accepted by the State universities. This tendency, while subversive of the relationships which have hitherto existed between college and preparatory school, and while injurious in the extreme to the growth and development of the smaller college, is a tendency which is invaluable and which deserves encouragement. It is a movement in the interests of economy, of better secondary education, and of better and broader higher education. The time is coming when, in every State, the leading high schools will carry the work to the end of the sophomore year in college. Nothing can be said in justification of the policy of stopping at an earlier point than this.

COMMISSION ON ACCREDITED HIGH SCHOOLS.[a]

If, as it has been suggested, the most significant step in the field of secondary education in the Eastern States has been the successful inauguration of the College Entrance Board, it is perhaps true that the most significant step in the West has been the establishment of the North Central Association of Colleges and Secondary Schools, of its commission on accredited schools. This commission was established in 1901 and made its first report at the annual meeting held in Cleveland March 28, 1902. The commission consists of about 40 members, equally divided between colleges and secondary schools. Its purpose is to effect reason-

[a] The subject of admission to college on certificate of accredited secondary schools is treated in Chapter XII of this Report (pp. 527-539).—ED.

able uniformity in requirements for admission to college. If the plan recommended is put into operation, any student graduated from any school on the accredited list may without difficulty enter any college in the association.

The report defines a unit course of study as a course covering a school year with four or five periods of at least forty-five minutes each per week. It is recommended that the high-school curriculum contain not less than 15 such units, and that the same number be accepted as fulfilling the requirements for admission to college. Of these 15 units there shall always be 3 in English and 2 in mathematics.

The report also presents:

1. Definitions with detailed suggestions as to the ground to be covered in each unit of the several subjects of the high-school curriculum.

2. A plan of school inspection in accordance with which the list of accredited schools may be formed.

3. Suggestions for the assignment of college credit for high-school work done in advance of the college-entrance requirements.

In defining and describing unit courses of study the commission has based its recommendations on the definitions of the college entrance examination board of the Middle States and Maryland, the committee of twelve of the American Philological Association, the committee of twelve of the Modern Language Association, the committee of seven of the American Historical Association, and the department of science of the National Educational Association.

I wish to join with the distinguished educator of the State of Michigan, Mr. A. S. Whitney, in the following statement:

I believe that this movement of the North Central Association defining units of study and the way in which these should be pursued, together with the simplification and unification of high-school inspection by the various universities and colleges, will prove the most important uplift given the high schools for many a day. It will furnish something tangible, systematic, and scientific which will form a guide for all schoolmen to follow.

TRAINING OF MANUAL-TRAINING TEACHERS.

I can not conclude my statement concerning the secondary schools without mentioning the change which has been decided upon during the present year in the plans of the Chicago Manual Training School, an institution which has influenced secondary education in the West perhaps more than any other scholastic institution in the Mississippi Valley. By the terms agreed upon the institution will be associated with the new school of education in the University of Chicago. Special buildings for the prosecution of its work on a larger scale are being erected. Its work will remain a distinct and separate work, although associated in the closest possible manner with the other secondary work of the school of education. The trustees of the school believe that the time has come for it to enter upon a higher function than that which it has hitherto enjoyed, namely, that of training teachers for special departments of manual-training work. The educational world recognizes the valuable service which Mr. Belfield has performed in the cause of manual training, and stands ready to award him the credit which is his in view of the pioneer service he has rendered.

NEED FOR ENDOWED ACADEMIES.

My last point is to call attention to the lack of interest in the work of the academy as distinguished from that of the high school. The strongest supporter of the high schools believes as cordially as ever in the necessity of the academy. The high school can not, in the nature of the case, be a boarding school. The need of boarding schools for boys and boarding schools for girls is everywhere acknowledged, but such schools can not be made strong and effective so long as

they are dependent on the funds for their support. In the great flood of benevolence which now flows toward colleges and universities men and women are forgetting the necessity of strongly endowed academies. I can not here enter upon an argument in behalf of the academy, but it is safe to say that, just as there is a place for the State university and for the university established by private munificence, so there is a place for the academy as well as for the high school supported by the city.

No one can doubt that the onward movement of secondary education during the past year has been as great as that of any preceding year in the decade.

INCREASE OF HIGHER EDUCATION.

Every succeeding year of the past decade has witnessed a greater interest on the part of the American people at large in the work of higher education. The year just passing has contributed as much, perhaps, as any two or three of the preceding years. This larger interest is manifested by the increased attendance at all institutions giving instruction in higher work, by the greater numbers of men and women preparing themselves for the work of instruction in higher institutions, and by the larger public generosity which is manifesting itself on every possible occasion. In each of these particulars the advance during the past year has been significant. Many of our institutions are actually overcrowded, the numbers being greater than can be adequately cared for. The number of graduate students in our universities has more than doubled in five years. It is from this source that men and women are being selected to fill the chairs of our colleges and universities. Every week, and in some weeks every day, the public press announces gifts for higher education of $50,000 to $100,000, and larger sums. The Federal Government appropriates in one bill $6,500,000 for the Military Academy at West Point; in another bill, even a larger sum for the Naval Academy at Annapolis. This increase in the numbers of students and in the numbers of those preparing for professorial work is not limited to any one section of the country. It reaches from the East to the far West. Nor are the gifts for education limited to the East, to the Central States, or to the West. They are being poured out lavishly in every direction, and are given alike to the smaller institutions and to the large universities.

HIGHER COMMERCIAL AND TECHNICAL EDUCATION.

An important feature of higher educational work in most recent times is the attention which is being given to commercial and technical instruction. The time has come when the university is compelled to adjust itself more definitely to its environment. The prevailing characteristic of the modern environment is now included under these words: Commercial and technological. In spite of the fact that in Boston there exists the greatest technical school in America (the Massachusetts Institute of Technology), Harvard University is compelled, so says its president, to establish by the side of it another school of technology. This is necessary in part because students who wish to attend school at Harvard desire instruction in technology, and also because a university must serve as the true expression of the sentiment of its period. The State universities have naturally led the way in the development of technological work. Other universities must follow if they are to meet the demands of the times. It still remains to be seen whether the steps that have been taken in the direction of commercial education of a college grade will realize the hopes of those who have engaged in it. After all, it is to be remembered that the main purpose of a college course is not the information which the student gains; and yet it is to be conceded that any ordi-

nary subject, well studied, may be used advantageously for the purposes of general education.

FEWER BACHELOR'S DEGREES.

A strong movement seems to have set in in the direction of reducing the number of bachelor's degrees to one. Following the lead of Harvard University, several institutions, including Columbia and Cornell, have given up the degrees of bachelor of science and bachelor of philosophy, and bestow upon all students who finish the college course the degree of bachelor of arts. This policy can, at all events, be defended on the ground of simplicity. It does away with distinctions which may seem to have lost their force. The strongest argument that has been urged is that by concentrating effort in the preservation of this degree the college course will be saved, where otherwise it is in danger of being lost. It may be questioned whether this tendency will go much further. It is surely doubtful whether it is to become universal. There are those who believe that the distinctions proposed in the different degrees are distinctions based upon real differences; that a course, the larger part of which is in science, may properly be called a course in science, and the degree given be a degree in science. The word "science" is one which its enthusiastic advocates should honor by use rather than dishonor by rejection. By the side of the old college of arts, the characteristic feature of which was the study of the classics, there have grown up two sister colleges—that of science and that of modern history and literature. Surely this fact may well be recognized, and nothing is gained by adapting the old degree to the new college, when it is so easy to employ a degree the name of which explains itself. This step can hardly be regarded as a forward step in education. The breaking down of real distinctions means backward movement, not progress.

MORE TRAINING FOR COLLEGE INSTRUCTORS.

It is generally conceded that the instruction given to students in the earlier college years has greatly improved within a short period. The custom of appointing as tutors or instructors students who had just graduated from college has almost disappeared in the better class of institutions. It is now expected that an instructor shall have had at least three years of special training in the subject in which he is appointed to give instruction. In some institutions there must be added to this at least one or two years of class-room instruction before an appointment is made. Not long since it was a common complaint that students in their freshman year received poorer instruction than in the last years of the academy or high school; and there was ground for this complaint. It can no longer be made, however, in view of the men appointed in all our institutions to do the earlier college work. In many institutions the oldest and most experienced professors give a portion of their time to freshman and sophomore classes.

STUDENT LIFE DEMOCRATIC.

A recent discussion in the Century Magazine on the growth of luxury in student life seems to have shown that, in so far as there has been a growth in this particular, it has not exceeded the similar growth in ordinary American life. Student life in our colleges and universities differs very slightly from the life of young men and women in any other sphere. Nowhere is life more democratic. It is impossible in student life that the influence of wealth should be felt. In most institutions the man who earns his livelihood by waiting on table occupies as high a position in the estimation of his fellows, if he is himself worthy of it, as does the man whose father is worth millions. The passing year has furnished no evidence that our higher institutions are moving further away from the people. The

fact that entering classes have been larger than ever indicates a confidence on the part of the American public in the purposes of the college and a faith in its ability to work out these purposes.

COLLEGE ATHLETICS.

The much-discussed subject of college athletics has received no important contributions during the year. Three things may perhaps be noted: First, the more stringent rules adopted by the Western colleges for the regulation of intercollegiate athletic work, and the general opinion that Western college athletics are now practically free from professionalism; second, the policy of many institutions to organize games between different divisions of the university itself, as well as to develop a special team for intercollegiate or interuniversity work; third, a growing feeling that the charging of large fees for admission to games savors too much of professionalism.

It may be feared that within a comparatively short time the rivalry between closely located institutions, East and West, has developed some antagonism. In not a few institutions there seems to exist a strong spirit of personal hostility toward other institutions with which competition in athletics is undertaken. Some of this same spirit has been manifested by home teams toward visiting teams, as well as by visiting teams toward the teams on whose grounds the games have been played. It is hardly necessary to say that such manifestations are a mark of deterioration and indicate that instead of making progress we are losing ground. Such an attitude of mind is hardly worthy of a true sportsman; much less does it accord with the high academic spirit. If such feelings are a necessary part of intercollegiate athletics, the sooner intercollegiate athletics are abandoned the better for all concerned. One can not believe, however, that these manifestations are anything more than passing phases, which in another year will have been forgotten, and that in their place there will arise a stronger spirit of dignified and friendly rivalry, characteristic at once of the gentleman and the scholar.

FRATERNAL FEELING BETWEEN UNIVERSITIES.

The head of a prominent State university in the West has written to me that in his opinion one of the leading features of the educational advance of the year "is the measure of fraternal regard which has grown up between leading institutions of higher learning. If this existed before it has certainly had a marked advance in the course of the last twelve months, and it is a very important factor in the future of American education." No one can doubt the truth of this statement, made by President Draper, of the University of Illinois. It is not too much to say that nowhere in the various activities of the world has fraternal regard shown itself more distinctly, nowhere has the spirit of cooperation been manifested more definitely, than among the higher institutions of learning. A conspicuous example of the good feeling existing between institutions is the interchange of professors which has grown up during these last years, the trustees of one university consenting to the transfer, for a certain period, of a particular person to another institution. A most striking case of this kind is the arrangement by which the corporation of Harvard University has recently given leave of absence to a professor in its law school with the understanding that he shall accept for that period the deanship of the new law school of the University of Chicago, and undertake to establish in connection with the latter university a school which shall, at all events in some measure, partake of the strength and characteristics of the Harvard school. What greater evidence of good will and mutual interest could be presented? This spirit of fraternal regard has been shown most tangibly in the four great academic festivals of the year held in connection with the celebration of the

Yale bicentennial, the celebration of the twenty-fifth anniversary of the Johns Hopkins University, the inauguration of President Butler at Columbia, and the centennial celebration of the Military Academy at West Point. At each of these celebrations representatives of many institutions were assembled. It seemed to be the prevailing opinion that good relationships between institutions of higher learning are not only conserved but greatly encouraged by such gatherings. In any case it is evident that, so far as the faculties are concerned, old hostilities have disappeared. In spite of the sharp competition which necessarily exists, feelings of the most friendly character are entertained, officially and unofficially, by one institution for another. It is evident to all that such gatherings are the means by which higher education makes a most forceful impression upon the consciousness of the people of the United States. The country knows no kind of celebration more brilliant or more effective than that which is connected with the two-hundredth anniversary of a university, or even with the twenty-fifth anniversary of an institution of higher learning; and the time has come when the inauguration of the president of a large university is of greater importance and attracts more general interest than the inauguration of the governor of a commonwealth.

CHANGE IN THE ATTITUDE OF BENEFACTORS.

The president of Harvard University has called my attention to a change which, as he puts it, "has been strikingly illustrated during the year now almost finished in the altered taste of benefactors in regard to objects of endowment. The older endowments of Harvard College were for mathematics, divinity, Greek, Latin, moral philosophy, and belles-lettres. The subjects which most easily enlist the interest of benefactors now seem to be medicine, architecture, history, economics, and government. Intelligent benefactors are generally moved by some far-reaching hope for good. This change indicates that the hopes of our generation concerning the future progress of civilized man are somewhat different from those during the earlier part of the eighteenth and nineteenth centuries."

The experience of Harvard is the experience of many universities, and no year has furnished more evidence of this change in the attitude of benefactors than the year just closed.

A BACHELOR'S DEGREE AS A CONDITION OF ADMISSION TO THE PROFESSIONAL SCHOOL.

In certain quarters much enthusiasm has been exhibited over the proposition to limit admission to professional schools to those who have already taken the bachelor's degree. The most conspicuous examples of this policy are the Johns Hopkins School of Medicine and the Harvard Law School. During the year the Columbia Law School and the Harvard School of Medicine have adopted the policy. Within two weeks the President of Yale University has expressed in no uncertain way his opinion that "this movement is a movement in the wrong direction." In this opinion I am compelled to join; and, if all the facts were announced, I am persuaded in my own mind that a large proportion of the membership of the very faculties through which this change has been brought about would agree substantially with Mr. Hadley's point of view. Men who are to do work that shall count in their professions must find themselves in possession of the technique of the profession before they have reached an age when such technique is impossible. Besides this, the earlier courses in law, in medicine, in divinity, are as truly disciplinary and as productive of culture as any subjects that are offered in the college curriculum. Many men who are preparing for a profession are distinctly injured by the last year or two in college instead of being benefited thereby. There are some men for whom the college atmosphere, as dis-

tinguished from that of the professional school, is not a wholesome one. Men who in college idle away their time in many cases find the more strenuous life of professional training exactly suited to their needs. The value of this movement, both from the point of view of the college and from that of the professional school, may, therefore, be doubted. In any case, a middle ground, requiring two or three years of college work, is a superior policy for the next decade.

SHORTENING THE COLLEGE COURSE.

The feeling grows stronger in every quarter that the college course, at least for those who are to engage in a profession, must be shortened. It does not seem that the Harvard plan of three years meets with general favor, even in Cambridge, although, according to the official report, 40 per cent of the men now graduating from Harvard College finish their academic work within three years. It would seem to be a better plan to allow those who do not contemplate a professional course of study to take the full four years of work in college, and to arrange for the other class to count their early professional work as a part of the work accepted for the bachelor's degree. A great forward step in the direction of this policy has been taken in the recent action of Yale. This policy has been adopted as the basis for the organization of the schools of medicine and law in the University of Chicago. It is the most practicable solution of the problem which confronts us, and bids fair to be the commonly accepted solution within a short time.

MORE WOMEN DESIRED ON COLLEGE FACULTIES.

Considerable comment has been made, although in a quiet and cautious way, upon the apparent scarcity of women possessed of the proper qualifications and training for the highest positions in college work. A prominent educator (I think it best to withhold mention of his name) has gone so far as to say that this scarcity is greater to-day than it was five years ago. Several suggestions have been made in explanation of the fact. For myself, I am not convinced that the proposition itself is true. The women now being graduated, with the doctor's degree, from our strongest institutions, are, in almost every particular, as able and as strong as the men. If opportunity were offered, these women would show that they possess the qualifications demanded. The fact is that to women there do not come the opportunities to show their strength which come to men. In colleges and universities for men only, women may not find a place upon the faculty. In a certain great State university, in which there are as many women students as men students, women are represented in the faculty by a single individual, and she has been appointed within the last three years. In some of the women's colleges women find a place. In others, second-rate and third-rate men are preferred to women of first-rate ability. The number of faculties of colleges and universities on which women have appointments in any number is very small, and even in certain institutions in which women have gained secure footing there is often greater or less distress among the men of the various departments if even one or two women are appointed. And yet, is it possible that the heads of our State institutions—institutions which are established by the people and conducted with the people's money; institutions which are professedly democratic beyond all others—deliberately refuse to recommend the appointment of women even when they have attained equal rank with men in scholarship and efficiency? So far as I can ascertain, during the past year the appointments of women, east and west, even in coeducational institutions, have numbered very few—fewer, perhaps, than ever before. Is this progress? Or is it rather a concession to prejudices which, instead of growing weaker, are growing stronger? I

venture to ask the regents of our State universities and the trustees of our coeducational institutions to consider this question; and I think it not inappropriate to suggest for the consideration of the trustees of certain women's colleges the question whether, in this matter, they have given to women the full opportunity which they deserve.

TENURE OF OFFICE OF PROFESSORS—FREEDOM OF TEACHING.

A burning question during this past year has been that which relates to the tenure of office of professors. That words have been spoken on both sides of the question is evident from the following statements, taken from personal letters addressed to me by two eminent presidents of universities. One of these gentlemen writes as follows:

Another tendency characteristic of the passing year, and tending toward reform, is the growing feeling that the professor's chair is sacred only as its incumbent makes it so, and that it is the right and duty of a university not to retain men deficient in character or ability as judged by the reasonable standards of the institution itself.

Another equally prominent president writes from the other point of view:

I can think of nothing so important to be touched upon in such a review as that which you propose as the danger of professorial degradation. This danger is mainly twofold: One arising from the extremely low salaries many institutions of considerable character are paying to titular professors, who, in the nature of the case, must be most ill-furnished for the work; and, secondly, from the tendency in certain quarters to snub professors, to treat them as underlings, and to constitute the head of the university a mere business boss. It is not at all the issue of academic freedom in the old sense, but rather one of personal freedom, manliness, and self-respect on the part of professors. I deem this a real danger vastly greater than any in which academic freedom, in the old sense, has ever stood in this country.

Here, then, is the issue; and it is an issue squarely drawn. Has progress been made in this respect, or has ground been lost in these last months? I have no hesitation in finding an answer to this question. Every month of the last twelve months has added to the security and permanence of the professor in the prosecution of his work. Every month has added to his dignity and to the importance which attaches to his words. Every month has made it clearer that public sentiment is on the side of the professor in any contest entered into with the institution of which he is a member. Within five years the sentiment has become almost universal that, once a man is appointed to do work in a university, the university is responsible for the appointment, but not for the views which the man later may propound. Gradually, but surely, even the common people are coming to perceive the difference between the university and the individual professors who form its staff. The time has not yet come, to be sure, when the people make distinctions of this same kind between the president of an institution and the institution itself. It is still wrongly understood that the words of a president must be words carrying with them the force and influence and authority of the university as a whole. Ten years from now, in the West and Northwest, men will be able to make this additional distinction. But great has been the progress which has thus far obtained in the attitude of the public toward the individual professor. It is asked, however, and not without reason: "Is there no limit to the indiscretion which a professor may commit in language or in deed? Are there no circumstances under which, by common consent of all concerned, the resignation of a professor may wisely and justly be demanded?" I take the liberty of repeating on this occasion words which I have used within the year in another address:

The greatest single element necessary for the cultivation of the academic spirit is the feeling of security from interference. It is only those who have this feel-

ing that are able to do work which in the highest sense will be beneficial to humanity. Freedom of expression must be given the members of a university faculty, even though it be abused; for, as has been said, the abuse of it is not so great an evil as the restriction of such liberty. But, it may be asked, In what way may the professor abuse his privilege of freedom of expression? Or, to put the question more largely, In what way does a professor bring reproach and injury to himself and to his institution? I answer: A professor is guilty of an abuse of his privilege who promulgates as truth ideas or opinions which have not been tested scientifically by his colleagues in the same department of research or investigation. A professor has no right to proclaim to the public as truth discovered that which is yet unsettled and uncertain. A professor abuses his privilege who takes advantage of a class-room exercise to propagate the partisan views of one or another of the political parties. The university is no place for partisanship. From the teacher's desk should emanate the discussion of principles, the judicial statements of arguments from various points of view, and not the one-sided representations of a partisan character. A professor abuses his privilege who in any way seeks to influence his pupils or the public by sensational methods. A professor abuses his privilege of expression of opinion when, although a student and perhaps an authority in one department or group of departments, he undertakes to speak authoritatively on subjects which have no relationship to the department in which he was appointed to give instruction. A professor abuses his privilege in many cases when, although shut off in large measure from the world and engaged within a narrow field of investigation, he undertakes to instruct his colleagues or the public concerning matters in the world at large in connection with which he has had little or no experience. A professor abuses his privilege of freedom of expression of opinion when he fails to exercise that quality—which, it must be confessed, in some cases the professor lacks—ordinarily called common sense. A professor ought not to make such an exhibition of his weakness, or to make an exhibition of his weakness so many times, that the attention of the public at large is called to the fact. In this respect he has no larger liberty than other men.

But may a professor do all of these things and yet remain an officer in the university? Yes. The professor in most cases is only an ordinary man. Perfection is not to be expected of him. Like men in other professions, professors have their weaknesses. But will a professor under any circumstances be asked to withdraw from the university? Yes. His resignation will be demanded, and will be accepted, when, in the opinion of those in authority, he has been guilty of immorality, or when for any reason he has proved himself to be incompetent to perform the service called for. The public should be on its guard in two particulars—the utterance of a professor, however wise or foolish, is not the utterance of the university. No individual, no group of individuals, can speak for the university. A statement, by whomsoever made, is the statement of an individual.

JUNIOR COLLEGES.

President Jordan, of the Leland Stanford Junior University, has suggested to me that among the various important movements of the year is the disposition of small colleges to become junior colleges, turning their graduates over to the universities at the beginning of the junior year. I may not dwell upon this opinion longer than to say that, within my own observation, many facts pointing in this direction have occurred. When some of our smaller colleges shall have come to appreciate the fact that their position in the educational world will, indeed, become a higher one if they will limit their work to that which they can do with thoroughness and satisfaction to all concerned, and will encourage their students at the end of the sophomore year to take advantage of the larger foundations in

be found in the State universities and in the great cities of the country, a great step forward will have been taken. The adoption of this policy by even a few will inaugurate a movement the ultimate results of which will be of incalculable value to the cause of higher education.

TRANSFER OF THE CONTROL OF EDUCATION TO THE LAITY.

No fact has been commented on more widely than that which has been thoroughly illustrated by the change of presidency at Princeton; namely, the transfer of the control of education from the clergy to the laity. In the Association of American Universities only one institution is under the administration of a clergyman; that one is the Roman Catholic University at Washington, and is essentially a theological institution. Special attention was drawn to this fact in the address of Mr. Eliot at the Columbia celebration. The significance of it is self-evident, and, when coupled with the fact that so small a number of college graduates in our universities now plan for the profession of preaching, the significance grows even more startling. Moreover, from no quarter, not even from the clergy, do we find criticism of this policy. It seems to meet with general favor and approval. Surely, if anywhere, the old régime would have continued in Princeton; but even at Princeton the new policy has been adopted. The fact is itself a commentary upon the function and place of higher education in the public mind. It is an epitome of the great change which has taken place within so short a time. One may not be too sure that this change is altogether good. Time alone will determine whether something is not lost in this transfer. It does not mean that our institutions of learning are any less religious either in fact or in theory, for it may be confidently maintained that never, in the history of higher education, has the religious spirit prevailed more widely, or extended more deeply, than at present. It does not mean that questions of ethics or of philosophy occupy a less prominent place than in former years. It does not mean that biblical instruction is now taking a secondary place in comparison with that which it has hitherto occupied; for here again, as everyone knows, never before in the history of college education have biblical studies occupied the place in academic instruction which they hold to-day. But if it does not mean these things, what does it mean? Simply that the work of education is itself a profession, separate and distinct from preaching. Just as, in olden time, when specialism introduced itself, he who had formerly been sage and soothsayer and priest was compelled to specialize, and three different classes of teachers, under different names, arose to do the work, namely, the sage, the prophet, and the priest; so to-day the training of the preacher is not the training which ordinarily is best adapted to prepare a man for the work of a university presidency. In truth, the position of the university president has become a unique position, a profession by itself; one the demands of which are greater perhaps than those made upon any other profession. This new phase is a growth of the last two decades. What its future development will be no one can prophesy; but it stands out to-day as distinct from the office of the clergy, on the one hand, as from that of the specialist in any department of science, on the other. The college president must be a specialist, and he must also be a generalist. Scholarship is expected of him; at the same time, thorough business training. The capacity for desk work is demanded, and, besides, skill in public speaking; and, above all, if not knowledge of all things, at least sympathy with all knowledge. The past year has made large contribution to the further differentiation of this new character in modern life.

THE RHODES SCHOLARSHIPS AND THE CARNEGIE INSTITUTION.

The two greatest single events in the history of higher education during the past year—indeed, during the past ten years—are those connected with Mr.

Rhodes's proposition for American and colonial scholarships at Oxford, and the foundation of the Carnegie Institution in Washington for research work. It is intensely interesting to note that these two great events were announced within ninety days of each other, and that the one is distinctly for educational purposes, the other for purposes of research, the two thus covering the entire function of the modern university. It is interesting to note further that in one case the provision is made by a foreigner, although intended to benefit American youth, and that in the other case the provision is also made by a man of foreign birth, its purpose being to elevate and dignify and increase the possibilities of research work in the land of his adoption. The members of the National Educational Council can not fail to have noted that the action of Mr. Carnegie was the direct result of a report made by a committee of this council a year ago, and that the Carnegie Institution has been established on precisely the lines laid down in the report of this council's committee.

The president of one of our oldest institutions writes to me privately this statement concerning these great gifts: "The relation of the great gifts of the past year to the future, like those of Carnegie or Rhodes, is so problematical that I do not, so early as this, venture to estimate their importance."

It is plainly possible that great injury to the cause of education may result from gifts of this magnitude, unless they are properly administered. On the basis of important testimony, coming to me directly from leaders of education in Scotland, I am convinced that Mr. Carnegie's gift to Scotch universities up to the present time has resulted in far greater injury than good to those institutions and to the cause of education in that country. One of the most dangerous weapons in the world is a large sum of money badly administered in a good cause. It is, therefore, as has been suggested, too early to hazard an opinion on the good or evil results of these gifts. That both of them have great possibilities of good no one can deny. The Carnegie fund has been established for research and ought to contribute largely to institutional cooperation; but if, instead of encouraging the work of research and investigation as already established in our institutions of learning, it endeavors to detach such work from those institutions and to gather to itself the responsibility and the credit for such work; if, instead of strengthening the work where it already exists, it undertakes to establish new foundations, independent of these institutions, in order that its own work may be more tangible, it will prove to be the greatest curse to higher education in this country instead of a blessing. If the Rhodes scholarships are to be employed to detach from the American environment 100 or more young men of special ability each year and transport them to foreign soil in order to imbue them with foreign ideas at an age when they are peculiarly impressionable; if the purpose of this foundation is to draw all men to a recognition of the doctrine of imperialism as it is embodied in the British Empire, the execution of this trust may prove a curse instead of a blessing to those who avail themselves of its privileges.

But there is no good reason to suppose that these injurious results will follow. The men to whose trust has been committed the Carnegie Institution are men of broad sympathies and of large ideas. Although thus far no sufficient indication has been given of the policy of the institution to lead us to suppose that the original proposition of institutional cooperation has a large place in the minds of those immediately in control, time will convince all who have relationship to this institution that only such a policy will be productive of the best results. And, surely, in the disposition of the Rhodes scholarships there will be employed that same large wisdom which has thus far characterized British statesmanship and diplomacy. The form of the gift is sufficiently indefinite to make it possible to modify the original proposition and to permit these scholarships to be for graduate work rather than for undergraduate work. In any case, regulations may

easily be established which will make profitable this temporary sojourn of American youth in a country so closely connected with our history and our sympathies. England and America stand together to-day, and in the future will continue to stand together, in all great international and humanitarian movements; and this additional bond of union may be not the least important one in bringing about great international reforms, in which England and the United States shall take the lead.

CONCLUSION.

We who are workers in the educational field to-day live in a period of great and wide-reaching opportunity. Our predecessors knew nothing of the advantages which we enjoy. The outlook which presents itself to us would have been for them an utterly impossible one. Greater wisdom is needed to-day, in view of these new and splendid opportunities. The work of the teacher grows more and more secure, and is more and more highly esteemed by the people at large. It is the highest career man or woman is permitted to follow. The greatest of all men was a teacher, a man who employed the methods of a teacher, and was recognized as such by all who met him. In view of the achievements of the past, and the possibilities and opportunities of the future, let us "gird our loins," put on new strength, and take up the burden of life for another year with new courage and with a never-failing faith in the dignity and value of the work which God has given us to do.

To the more than one hundred leaders in education in the elementary, the secondary, and the higher fields of work who, by their suggestions, have aided me in the preparation of this paper, I wish to make acknowledgment of my indebtedness.

I have intentionally omitted the consideration of the educational literature of the year, as well as the trend of educational matters across the ocean. It was necessary to place some kind of limitation on the scope of the paper.

CHAPTER XV.

EDUCATION IN FRANCE.

France, Republic: Area, 204,092 square miles; population, 38,517,975 (1896). Civil divisions having special functions in educational administrations: departments (90 in number, including 3 in Algiers); communes, cities or villages.

PREVIOUS ARTICLES.

The educational system of France. (Report, 1888–89, Vol. 1, pp. 112–149.)

Report of the educational congresses and exhibition held in Paris, 1889. (Report, 1889–90, Vol. 1, pp. 41–186, by W. H. Widgery.)

Brief view of the educational system, with statistics for 1888–89. (Report, 1889–90, Vol. 1, pp. 249–261.)

Elementary education in London and Paris. (Ibid., pp. 263–280.)

Education in France: Statistics, 1890–91; progress of primary schools since Guizot's law, 1833; higher primary and classical schools of France. (Report, 1890–91, Vol. 1, pp. 95–124.)

Education in France: Outline of the system, and statistics for 1892; proposed transformations and development of State faculties. (Report, 1891–92, Vol. 1, pp. 73–95.)

Civil service in France, by W. F. and W. W. Willoughby. (Ibid., pp. 399–412.)

Education in France: Outline view, with current statistics; inspection of infant schools; recent changes in the baccalaureate; reorganization of medical studies and of the scientific course preparatory thereto. (Report, 1892–93, Vol. 1, pp. 219–237.)

Education in France: Statistics for 1891–1893; recent modifications in secondary and superior education; progress of the system of primary instruction; schools for adults; movements for the admission of American students to the universities of France. (Report, 1894–95, Vol. 1, pp. 289–312.)

Education in France: Statistics for 1894–95; summarized view of primary schools; proposed modifications of secondary institutions; the law of July 10, 1896, transforming the State faculties into universities; status of medical students in France, with special reference to foreigners; Dr. Alcée Fortier on the French lycées. (Report, 1895–96, Vol. 1, pp. 611–639.)

Education in France: Statistics, current and comparative; opening of the universities under the law of July 10, 1896; the new doctorate open to foreigners; state secondary schools *v.* church establishments; the law of July, 1893, respecting salaries of teachers of primary schools; the superior primary schools, progress, organization, and scope; M. Boutmy on the reform of the baccalaureate; M. Bréal on the study of Greek. (Report, 1896–97, Vol. 1, pp. 29–70.)

Education in France: Statistics, 1896; the decentralizing movement; the reconstruction of the universities; efforts for strengthening the moral influence of the schools; temperance instruction; manual training and technical schools; report of Mr. Charles Copland Perry on technical education in France; the admission of American students into French universities; review of the career of M. Victor Duruy, minister of public instruction, 1863–1869, by the Duc de Broglie; review of the work of M. Henri Marion, first professor of the science of education at the Sorbonne, by M. F. Buisson. (Report, 1897–98, Vol. 1, pp. 694–783.)

System of public education in France: Summarized statistics; current record of the universities organized under the law of 1896; tabular view, 1887 and 1897; admission of foreign students to French universities; the university doctorate created under decree of 1897; primary education; work of the Republic reviewed; secondary education; congress of professors; commission of inquiry. (Report, 1898–99, Vol. 1, pp. 1086–1138.)

Education at the Paris Exposition. (Report, 1899–1900, Vol. 2, pp. 1661–1709.)

System of education; outline and statistical survey, current and retrospective; proposed reform of State secondary schools; public lycées and colleges for girls; universities, reorganization and recent development; the congress of primary education. (Report, 1899–1900, Vol. 1, pp. 1711–1732.)

Retrospective and current survey of State education; the system of primary school inspection; the new scheme of secondary education; the law subjecting religious orders to civic authority; conspectus of courses of study in the University of Paris; the new university doctorates; international correspondence of students; the teaching of "la morale" in the primary schools; the simplification of French syntax. (Report, 1901, Vol. 1, pp. 1081-1133.)

TOPICAL OUTLINE.

Statistical summary for 1900-1901. Constitution of the State system. Historical development of the system.

Primary education: Detailed statistics, current and comparative; school enrollment and attendance; the teaching force; expenditures. Agencies complementary to the school: Evening classes; popular lectures; insurance societies ("Petites Cavé"); associations of former pupils ("Petites A"); school patronage associations; university extension; sources of support. Educational statistics of French cities having more than 100,000 inhabitants. Statistics of illiteracy.

Secondary education: Statistics; scope; unsatisfactory condition arising (1) from the influence of the rival schools of the religious orders, (2) from the want of scholastic advance; law against the religious orders; the new plan of secondary studies as set forth by Dr. Compayré; comparative view of curricula 1886-1902; chronological review of the successive modifications of secondary schools since 1789.

Higher education: Statistics, current and retrospective; historic review of the development of French universities, after report of M. Liard; particulars of recent expansion, from report of M. Maurice-Faure; admission of foreign students to French universities; table of higher technical schools.

Appended paper: The professional and financial status of French primary teachers as developed by a recent inquiry.

Statistical summary of education in France.[a]

Classes of institutions.	Date.	Enrollment.			Professors and teachers.			Total expenditure.
		Male.	Female.	Total.	Men.	Women.	Total.	
Infant schools (écoles maternelles), public and private (ages 2 to 6)	1899-1900	(747,108)		747,108		9,831	9,831	
Primary schools:								
Public	1899-1900	2,310,929	1,847,983	4,158,912			107,637	[b]$42,893,050
Private	1899-1900	455,339	915,981	1,371,320			48,988	
Total primary schools	1899-1900	2,766,268	2,763,964	5,530,232			156,625	
Primary normal schools (ages 16 to 19)	1897	[c]3,865	[c]3,871	[c]7,736	897	852	1,749	
Secondary schools:								
Public (ages 8 to 20)	1900-1901	88,202	18,320	106,522				7,202,823
Private (ages 8 to 20)	1900-1901	[d]76,946		76,946				
Universities:								
Public	1900-1901	28,959	943	29,902				
Private	1900-1901	1,487						
École normale supérieure	1901			110				103,120

[a] With the exceptions indicated by footnotes, these statistics are from the report of M. Maurice-Faure, chairman of the financial committee of the Chamber of Deputies. Budget for 1902 (session 1901).

[b] Expenditure for 1896-97, including all public primary schools and primary normal schools.

[c] Statistique de l'enseignement primaire, 1896-97.

[d] Excluding the clerical seminaries (petits séminaires) preparatory to the theological schools, enrolling about 23,000 young men.

State appropriations for public instruction at specified dates.[a]

Year.	Francs.	United States equivalent.
1815	1,630,000	$326,000
1830	1,995,000	399,000
1840	11,460,000	2,292,000
1848	13,253,000	2,650,600
1860	14,436,000	2,887,200
1870	24,283,000	4,856,600
1872	33,784,000	6,756,800
1882	105,826,000	21,165,200
1892	168,563,000	33,712,600
1900	198,878,000	39,775,600
1901	206,906,483	41,381,296
1902 (asked)	209,093,756	41,818,751

[a] Report of M. Maurice-Faure, for the Chamber of Deputies, session 1902, pp. 2, 3.

SUMMARY OF THE YEAR, 1900–1901.

From the above summary it appears that in the year 1900–1901 there were enrolled in the primary schools of France, including infant schools, a total of 6,277,340 pupils. Omitting the infant schools, the enrollment in primary schools was 5,530,232, equivalent to 14.19 per cent of the population. Of this enrollment 75 per cent were in State primary schools. Secondary schools for boys enrolled 165,148 students, of which total 53.4 per cent were in State schools (lycées and communal colleges). The universities registered 31,389 students, of whom the vast majority, viz, 95 per cent, were in the State institutions.

In addition to the State universities there are numerous special schools for advanced study and research under the control of the minister of public instruction and supported by the State (see footnote, p. 698), and several State technical schools of university rank under the control of other ministers (table, p. 710). The numerous municipal schools of similar character complete the public provision for the highest order of specialized education. The number of students belonging to the high-grade special schools can not be exactly stated. Of those in attendance upon the specialized schools of liberal culture, i. e., the École des Hautes Études, Collège de France, etc., many are borne on the university registers as candidates for degrees. The number of students in the special technical schools is approximately 3,500.

Technical schools of a somewhat lower grade are very numerous, including 35 schools of arts and trades dependent upon the ministry of commerce, enrolling about 5,500 pupils; 13 municipal technical schools in Paris, with 1,380 pupils, and a large number of private schools, supported by private societies or by manufacturers.

The three principal secular associations engaged in the maintenance of schools of this class report for the year 1899–1900 an average attendance upon their classes in Paris (chiefly evening classes) as follows:

	Students.
The Polytechnic Association	13,380
The Philotechnic Association	9,920
Union Française de la Jeunesse	11,348
Total	34,748

The expenditure for the schools and universities under the control of the minister of public instruction is met by State and local funds. The appropriation for this purpose from the State treasury amounted in 1901 to $41,393,296 (206,966,483 francs). Of this total about 76 per cent, $31,426,215 (157,131,075 francs), was for primary education.

accordance with modern demands. On the other hand, the system of State primary schools is almost wholly the creation of the Republic.

The work was begun in 1878 by the appropriation of a fund of $23,000,000 to be advanced to the communes, one-half in subventions, the other half in loans, to aid them in building schoolhouses. The want of adequate provision in this respect made it impossible to carry into full effect the law of 1833 (Guizot's law), requiring every commune to maintain a public school, supported in part, at least, by a communal tax. This obligation had been extended by Duruy's law (1867), which required every commune of 500 or more inhabitants to maintain a separate school for girls. Under both laws (i. e., 1833 and 1867) a parochial school might be adopted as a public school. The first official school statistics published under the Republic (1876–77) showed for the 36,097 communes 71,547 schools. Of these, 59,021 were classed as public schools, but of this number, 13,205, or 22 per cent, were schools belonging to religious orders.

If instead of schools the number of classes be considered, it appears that 32 per cent were in charge of members of religious orders.

The measures by which the Republic has freed the public schools from all relation to the church were adopted under the direction of Jules Ferry, who was appointed minister of public instruction in 1879. He began the work by a law passed August 9, 1879, imposing upon each department the creation of a normal school for women teachers upon the same guarantees as those required by the law of 1833 for the normal schools for men.

This law, with the subsequent foundation of the higher normal schools, St. Cloud and Fontenay-aux-Roses—intended to train professors for the departmental normal schools—completed the provisions for training a body of teachers devoted to the service of the Republic.

There followed in rapid succession the measures by which this minister perfected the national system of primary education, namely, the law of June 16, making the public primary schools free schools, and requiring all primary teachers to be provided with a State diploma, "brevet de capacité" (letters of authorization from ecclesiastics had been previously accepted in lieu of a diploma), the law of March 28, 1882, rendering primary instruction obligatory (choice of means being left to parents), and the law of October 30, 1886, regulating the organization and work of the public schools and forbidding the future employment in them of teachers belonging to the religious orders. (Five years were allowed for carrying this clause into effect in schools for boys; in respect to schools for girls, no time limit was fixed.)

By reference to Table III, page 674, it will be seen that in 1900 the religious orders enrolled in their schools about 28 per cent of the children in primary grades. The recent law making these orders subordinate to the State is in strict accord with the policy of Jules Ferry.

Under the law of July 15, 1889, the State assumed the payment of the salaries of teachers, thus converting the teachers into employees of the State instead of the commune or city.

Comparatively little is left to local initiative in respect to the support of public education. Even the local school tax is levied by the State and collected by State officers.

The mayor and civil councilors of every commune (city or rural) have the right to inspect the local schools in respect to the condition of school buildings, furniture, and supplies, and the health and conduct of pupils; but they have no authority over the schools.

There is also a school committee (commission scolaire) in each commune appointed by the academy inspector in advice with the municipal council to super-

vise and encourage school attendance. In Paris and Lyon there is a local committee for each municipal arrondissement.

While the central authority regulates the essential conditions of the school work there is a wide field for local effort in the support of additional and optional features, and the chief cities of France have shown immense energy and ambition in the development of their school systems beyond the minimum requirements of the law.

PRIMARY EDUCATION.

DETAILED STATISTICS OF PRIMARY EDUCATION, CURRENT AND COMPARATIVE.

The following statistical details showing the development of primary education under the Republic are from the official statistics published quinquennially (the last bearing date 1896–97) and from reports submitted in recent years to the Chamber of Deputies by the chairman of its financial committee.

The status of the communes with respect to the establishment of schools in 1897 was as follows:

Total number of communes	36,520
Number having one or more public schools	35,618
Number having only private schools	39
Number maintaining a public school with another commune	815
Number having no school	48
Communes of 500 inhabitants or more	18,589
Number having a public school for girls	17,185
Number having only private schools for girls	708
Number having no separate schools for girls	646
Communes of less than 500 inhabitants having a separate school for girls	3,601

Table I shows the number of children of legal school age for the years specified, the ratio of the school population to the total population, and the ratio of school enrollment to population.

TABLE I.—*Retrospective view of population, as shown at census dates, and ratio of enrollment in primary schools to total population.*

Year.	Total population.	Increase (+) or decrease (−).	Children between 6 and 13, inclusive.	Increase (+) or decrease (−).	Ratio to total population.	Ratio of enrollment in primary schools to total population.
		Per cent.		*Per cent.*	*Per cent.*	*Per cent.*
1876	36,905,788		4,502,506		12.2	12.78
1881	37,672,048	+2.1	4,586,349	+1.85	12.17	13.97
1886[a]	38,218,903	+3.55	4,729,144	+5.03	12.4	14.46
1891	38,343,192	+ .32	4,639,526	−1.89	12.1	14.49
1896	38,517,975	+ .79	4,636,381	− .07	12.03	14.37
1901	38,961 945	+1.15				14.20

[a] Algiers included for this and subsequent years.

Tables II and III show the distribution of pupils for the years specified among the different classes of public schools.

of 404 per cent. In the last-named year there were reported in the superior primary schools, which admit pupils possessed of the certificate of primary studies, a total of 64,658 pupils. The usual course of these higher schools is of two years' duration (in the larger cities increased to three or four years). It is apparent that only a small proportion of pupils who secure the certificate pass on to the higher grades.

The solicitude of the Government as to the relative influence of public and parochial schools in securing the support of parents is indicated by the official discussions of the subject of school attendance; but apart from this question which concerns France alone, the various suggestions as to means for promoting regular attendance and for prolonging school instruction are of general interest. The measure of first importance relates to the higher primary schools.

Attendance upon these schools in the period from 1892 to 1900 increased from 45,599 pupils to 62,982, or 38 per cent. During the last four years of the period there was a slight decrease (1,696) in the number enrolled. This falling off is, however, merely apparent. It results from the transfer of eleven higher primary schools of Paris, with an attendance of 2,505 pupils, to the charge of the ministry of commerce. The transfer has come about from peculiarities of the French administration, and is only significant in this survey as a sign of the general demand that higher primary schools shall have a distinctly industrial bearing. This demand is more readily met in the cities than in the rural regions, owing to the nature of the local industries, and consequently it is in the cities that the higher primary schools are well sustained. In the chief cities the expenditure for these schools is met entirely by local funds, and the schools are very perfectly organized and equipped.

Recently an endeavor has been made to enhance the importance of the higher primary schools by making them annexes of the local colleges. This experiment, which has been tried in a few departments, has already produced such excellent results that it is certain to be extended. "By this means," says M. Maurice-Faure, "it will be possible to increase the educational provision of cities without imposing upon them heavier financial burdens, and the arrangement gives to parents facilities for choosing the courses of study most advantageous to their children." In other words, while recognizing the necessity of maintaining the industrial bearing of the training afforded by the higher primary schools, the Government seeks also to make those schools the preparatory step to a more liberal education for those children whose parents are ready to avail themselves of the wider opportunities.

Attendance upon the higher primaries is fostered also by scholarships (bourses), State and municipal. These funds are of three classes: "Bourses d'internat" (not to exceed $100 per annum), which cover the cost of living in the boarding department, if the school has one; "bourses familiales" ($100), which are in the form of an allowance for expenses at home, and bourses of support ($20 to $80). In 1897 the number of scholarships allowed was 1,006—viz, 626 to boys and 380 to girls.

The vast majority of primary-school pupils have, however, no hope of entering the higher primary schools. Their school training, as M. Buisson has pointed out, "is too brief; it covers only the earliest years. The impressions which it makes, vivid and ineffaceable though they may be, are only the impressions of childhood, and other impressions—the stronger impressions of youth and of adolescence—soon come to obscure the earlier. A moral influence which ceases to operate the day after the child's confirmation may perhaps affect the child, but it can not form the man." This limitation is not a defect of the primary school, but simply an unalterable condition. It calls for other agencies which may supplement and

extend the work of the primary schools. To meet this requirement, common to all countries, extraordinary efforts are now being put forth in France. The nature of these efforts will be seen by the summary given further on under the head of agencies complementary to the school.

THE TEACHING FORCE.

TABLE IV.—*Number and classification of teachers of primary schools at specified dates.*

Year.	Total number teachers.	Men.	Women.	Men and women.	
				Public.	Private.
1837	59,735	39,302	20,433	38,465	21,270
1840	63,409	40,504	22,905	40,843	22,566
1843	75,535	47,301	28,234	50,446	25,089
1863	108,799	49,585	59,214	70,441	38,358
1872	110,238	50,549	59,689	75,062	35,176
1876-77	110,709	51,717	58,992	80,063	30,646
1878-79	117,451	53,941	63,510	82,343	35,108
1879-80	119,870	55,182	64,688	83,581	36,289
1880-81	122,760	56,410	66,350	85,451	37,309
1881-82	124,965	58,137	66,828	88,220	36,745
1882-83	129,657	60,624	69,033	92,300	37,357
1883-84	132,580	61,654	70,926	94,784	37,796
1884-85	133,900	62,158	71,742	85,810	38,090
1885-86	137,000	63,670	73,330	97,996	39,004
1886-87[a]	138,655	64,039	74,616	98,769	39,886
1887-88	141,063	64,631	76,432	100,417	40,646
1888-89	142,660	65,181	77,479	100,913	41,747
1889-90	143,259	65,312	77,947	101,144	42,115
1890-91	146,247	65,763	80,484	103,769	42,478
1891-92	146,674	66,363	80,311	102,486	44,188
1892-93	148,394	66,965	81,429	103,513	44,881
1893-94	149,271	67,071	82,200	104,028	45,243
1894-95	150,913	67,265	83,648	105,162	45,751
1895-96	151,563	67,203	84,360	105,587	45,976
1896-97	152,277	67,339	84,938	105,774	46,503
1897-98	153,505	.....	.....	106,355	47,150

[a] For this and for subsequent years Algiers included.

TABLE V.—*Lay* v. *clerical teachers at specified dates.*

	Public schools.				Private schools.			
	1886-87.	1891-92.	1896-97.	Increase or decrease, 1886-87 to 1896-97.	1886-87.	1891-92.	1896-97.	Increase or decrease, 1886-87 to 1896-97.
				Per cent.				*Per cent.*
Men:								
Lay	53,072	55,559	56,373	+ 6.21	1,842	1,423	1,278	−30.61
Belonging to religious orders	2,544	132	00	−100.00	6,580	9,249	9,685	+47.18
Total	55,617	55,691	56,373	+ 1.35	8,422	10,672	10,963	+30.17
Women:								
Lay	29,887	35,446	40,385	+ 35.12	6,923	6,186	5,500	−20.55
Belonging to religious orders	13,265	11,349	9,013	− 32.05	24,541	27,330	30,040	+22.40
Total	43,152	46,795	49,398	+ 14.47	31,464	33,516	35,540	+13.00
Grand total	98,769	102,486	105,774	+ 7.09	39,896	44,180	46,503	+16.58

TABLE VI.—*Proportion of lay and of clerical teachers for the years specified.*

	Public schools.			Private schools.		
	1886-87.	1891-92.	1896-97.	1886-87.	1891-92.	1896-97.
Men:	*Per cent.*	*Per cent.*	*Per cent.*	*Per cent.*	*Per cent.*	*Per cent.*
Lay	95.42	99.8	100.00	21.87	18.33	11.65
Belonging to religious orders	4.58	.2	.....	78.13	86.70	88.35
Women:						
Lay	69.26	75.74	81.75	22.00	18.45	15.47
Belonging to religious orders	30.74	24.26	18.25	78.00	81.55	84.53

Of the teachers employed in the public schools, 97 per cent on a total of 105,774 employed in 1897 were possessed of diplomas and 43 per cent of the highest diploma (certificat d'aptitude pédagogique). The proportion of certificated teachers in the private schools was 87 per cent on a total of 46,503.

The remarkable progress made by France in securing trained teachers for its public schools is due in great measure to the liberal provision of normal schools and the high standard at which these are maintained. Every department has complied with the law requiring the establishment of two normal schools, one for men and the other for women, or has been authorized to combine with another department for this purpose. The State shows its solicitude in this matter by the maintenance of two superior normal schools, one for men at St. Cloud, the other for women at Fontenay-aux-Roses, in which professors are trained for the primary normals. These two superior schools are really post-graduate institutions, requiring for admission either the higher diploma of pedagogy or a bachelor's degree.

The following statistics show the relative status of the primary normal schools at the beginning and end of the last half decade reported:

	Number of schools.	Number of students.	Number of officers and teachers.
1891-92.			
Normal schools for men	87	3,878	890
Normal schools for women	85	3,707	711
1896-97.			
Normal schools for men	87	3,865	897
Normal schools for women	85	3,871	852

The total number of graduates during the half decade 1888 to 1892 was, from the schools for men, 7,189; from the schools for women, 5,615. The corresponding numbers for the half decade 1893 to 1897 were, men, 6,199; women, 6,139. Total for the decade, 25,142, or an average of 2,514 annually.[a]

EXPENDITURE.

The total expenditure for primary education in 1896-97 amounted to 214,015,250 francs ($42,803,050). This sum includes expenditure for primary normal schools and for infant schools, the current expenditure for the primary schools proper (elementary and superior) not being separately presented. On the basis of this total the expenditure per capita of enrollment in public primary schools (viz,

[a] The unsatisfactory status of the French teacher as regards salary and resulting social condition is set forth in the paper appended to this chapter, entitled "The professional and financial status of the French primary teachers." The spirit which pervades the professional instruction of teachers is shown by the closing lecture of the course in pedagogy at the Sorbonne, session of 1899, delivered by M. Buisson. Translation in Chapter XVI.

4,642,609, infant schools included), says M. Levasseur, is found to be 46 francs ($9.20). It is difficult to institute comparisons on this basis, because of changes in the financial administration since 1890, but this the statistician has attempted with results that are shown in the following table. These results, he explains, are not exactly comparable, but they establish beyond doubt the fact of steady increase in the per capita expenditure for public primary education.

These estimates do not include the payment of interest on the moneys advanced for school buildings. If this item were included in the estimate for 1896–97, it would raise the per capita expenditure to 56 francs ($11.20).

The expenditure for private primary schools is not known,[b] but on the supposition that it is relatively the same as for the public schools, the total annual expenditure for primary education is estimated by M. Levasseur as 293,000,000 francs ($58,600,000), not including rents for hired buildings and interest on money invested in school property. Including these items the estimated amount is increased to 350,000,000 francs ($70,000,000).

Total current expenditures for public primary schools.

Year.	Total expenditures.		Proportion from each contributory source.		
			State.	Departments.	Communes.
	Francs.		*Per cent.*	*Per cent.*	*Per cent.*
1877	94,397,554	$18,879,510	25	18	57
1881–82	132,314,010	26,462,802	66.25	13.22	20.53
1886–87	172,900,515	34,580,103	48.80	10.50	40.90
1891–92	186,306,075	37,261,215	67.60	.....	32.40
1896–97	214,015,250	42,803,050	67.02	.....	32.98

Expenditure per capita for years specified.

Year.	Per capita of population.		Per capita of enrollment in public primary schools (infant schools included).	
	Francs.		*Francs.*	
1877	2.55	$0.51	23.45	$4.69
1881–82	3.51	.70	30.25	6.05
1886–87	4.52	.90	34.85	6.97
1891–92	4.82	.96	39.26	7.85
1896–97	5.55	1.11	46.00	9.20

AGENCIES COMPLEMENTARY TO THE SCHOOL.

Under the above caption are included a variety of agencies intended to promote the intellectual, industrial, and social welfare of the masses. Among the efforts of this kind in which the educational side is particularly emphasized are systematic courses of lessons for youths and adults and popular lectures conducted by teachers and professors of the regular schools. This work, fostered by the Government, has extended throughout France. In 1900 the number of courses of lessons under public auspices reached a total of 40,829 (28,536 for young

[b] According to a recent estimate, 60,000,000 francs ($12,000,000) are annually raised for the church schools. All Catholics, even the humblest and poorest, cooperate in the work. The money "is chiefly raised by what is called 'The Sou of Christian Schools,' a widespread interdiocesan guild whose headquarters are in Paris. This guild enrolls most of the devout Catholics of France and binds them to a share in the good work. Some undertake to give a sou a week, some a sou a day, some more."

men, 12,793 for young women); private associations maintained 5,000 similar courses, making a total of 45,000 courses of lessons on various subjects, with an attendance in round numbers of 556,000 (400,000 young men and 156,000 young women).

The popular lectures numbered in the same year 25,065, while the attendance was estimated at 3,000,000. As a rule the lectures are illustrated by magic-lantern views, of which 29,000 collections were furnished by the Government for the use of the lecturers. The Ligue de l'Enseignement, a private society engaged in the work, distributed 44,986 views.

Among the efforts intended particularly to promote the social welfare of the young are the mutual-insurance societies (Petites Cavé). This work, which comprised 10 groups in 1895–96, numbered 2,017 in 1901, representing 12,000 schools and more than 500,000 pupils. The contributions amounted to nearly 3,000,000 francs ($600,000), of which 700,000 francs ($140,000) were disbursed to members on account of sickness. This relief is given, not as a charity, but as a restitution or reciprocal assistance. That part of the fund which is not used in relief is invested for the contributors and returned to them when they leave school in the proportion of their original deposits. The system has spread from the day schools to the evening classes for adults.

Many students in lycées and colleges have also been induced to join the societies, which thus tend to promote the sense of common interests among those whom fortune has separated.

In three departments needy children who have no money to deposit have been made members of the societies by contributions from public funds.

Associations of former pupils are being formed all over France for the purpose of maintaining the paternal relations begun in the schools and also of exciting the friendly interest of former pupils in those who have taken their places in the schools. These associations, familiarly known as the "Petites A," held a congress at Montpellier in 1901 which has given an immense impetus to their cause.

The school patronages are associations of benevolent and public-spirited persons whose mission it is to look after school children during their holiday seasons and more particularly after they have left school. These societies seek to provide innocent amusements for the young, that may counteract the temptations of the saloon, and to find suitable employment for those who are in danger of sinking into idleness or vagabondage.

In view of these vigorous efforts on the part of the Government and the loyal supporters of the public schools, it is but just to recognize that abundant precedents for these fraternal and relief associations are found in the system of education maintained by the church. The members of the religious orders devoted to teaching have been distinguished by their solicitude for the moral good and the industrial welfare of the poor. The secular public school in its elementary form is lacking in many restraining influences which the older system threw around the young, and it is the recognition of this fact that has inspired the unusual effort on the part of the Government and the adherents of the new order of things to create new agencies to meet a great public need.

The university extension work (universités populaires) is intended not only to provide instruction, but to exercise a salutary influence upon society by bringing together citizens belonging to different classes.

The work was begun at Paris some years ago by a workingman of unusual intelligence, M. Deherme, aided by a university professor, M. Gabriel Scailles, who was devoted to an ideal of social reform. The movement spread rapidly and to-day includes 30 centers in Paris and its suburbs and more than 100 in the whole of France. These centers are becoming more and more the animating source of a propaganda of socialistic doctrines.

The expenditure for these "complementary works" is borne by private societies and by contributions from State and local funds. The contributions from the societies for this purpose amounted in 1900 to 1,250,000 francs ($250,000); from the municipalities to 2,218,000 francs ($443,600), of which sum Paris furnished 974,125 francs ($194,825); from the departments 62,500 francs ($12,500); in all, 3,530,500 francs ($756,100). The State appropriated for the work 200,000 francs ($40,000), which were expended in awards, in the form either of medals with a money prize or sums of money. These awards are bestowed upon the members of the regular teaching force in recognition of their service in the classes for adults.

By a decree of January 10, 1901, the number of medals to be awarded was fixed as follows: Fifty medals of silver, with a prize of 100 francs; 100 silver medals, with prizes of 75 francs; 400 bronze medals, with a prize of 50 francs. Fifty-eight thousand three hundred and eighteen candidates were put on the list for these awards and an official commission appointed to decide upon their relative merits.

Besides the medals, the State has awarded the following special distinctions for devotion to this cause: Eighteen "palms" of officers of public instruction; 80 "palms" of officers of academy; 619 gifts of books; 3,076 diplomas of honor; 5,405 letters of commendation.

Of the appropriation of 200,000 francs, 116,970 francs ($23,394) were divided between the departments to be awarded in sums not less than 25 francs each to teachers named by the prefects for their service in promoting the complementary courses of instruction.

The entire disposition of the 200,000 francs was as follows:

	Francs.
Medals with prizes	41,000
Gift books	13,000
Money indemnities to teachers	116,970
Diplomas	3,786
Magic-lantern views	8,000
Subventions to societies engaged in the work and costs of printing	17,244
Total	200,000

TABLE IX.—*Educational statistics of the cities of France having more than 100,000 inhabitants, 1896–97.*

PART A—INFANT SCHOOLS (ÉCOLES MATERNELLES).

Schools.	Paris.	Lyon.	Marseille.	Bordeaux.	Lille.	Toulouse.	St. Étienne.	Roubaix.	Nantes.	Le Havre.	Rouen.	Rheims.	Total.
Public.													
Number	149	40	27	15	25	11	25	12	8	15	8	13	348
Teachers	641	97	76	51	69	20	70	37	17	46	21	36	1,181
Pupils	50,731	7,563	6,885	4,709	5,504	1,749	5,242	5,267	1,340	4,009	1,472	5,545	100,016
Private.													
Number	93	45	41	26	33	25	17	20	6	1	10	11	328
Teachers	96	58	64	52	75	35	32	29	8	2	15	23	489
Pupils	10,685	5,649	4,945	3,527	7,934	2,928	2,572	3,921	879	80	1,276	2,801	46,477

PART B—ELEMENTARY PRIMARY SCHOOLS.

Public.													
Boys:													
Number	200	53	71	20	25	30	26	15	13	12	9	13	487
Teachers (men)	1,654	225	280	167	139	110	130	86	55	116	69	68	3,199
Pupils	82,470	10,631	15,661	8,818	6,379	4,847	5,811	6,206	3,346	5,477	3,396	4,344	157,386
Girls:													
Number	186	54	71	21	24	24	26	12	13	12	12	15	470
Teachers (women)	1,696	209	230	131	139	86	105	63	64	100	84	62	2,909
Pupils	70,602	9,440	11,502	6,836	5,116	3,849	4,098	4,321	3,054	4,757	4,059	4,066	132,354
Private.													
Boys:													
Number	151	71	80	23	28	16	17	9	16	5	12	13	441
Teachers (men)	557	250	240	97	140	61	91	63	65	30	48	47	1,694
Pupils	28,668	7,450	8,047	4,182	6,054	2,650	3,521	3,125	3,340	1,608	2,102	2,841	74,204
Girls:													
Number	643	154	207	92	44	77	42	21	45	24	45	28	1,402
Teachers (women)	2,231	477	623	351	351	203	181	121	194	110	194	146	5,342
Pupils	58,724	11,218	13,222	8,828	9,015	5,445	4,839	4,590	4,801	3,414	4,323	4,146	132,565

PART C—HIGHER PRIMARY SCHOOLS.

Boys.													
Number	13	3	2	1	1	1	1	1	1	1	1	1	27
Teachers (men)	544	16	10	8	11	8	8	12	19	8	7	21	672
Pupils	4,917	638	317	224	315	326	157	333	163	189	245	230	8,049
Girls.													
Number	8	3	2	1	1	.....	1	1	.....	1	1	1	20
Teachers (women)	229	14	10	8	11	.....	10	11	.....	8	8	7	816
Pupils	2,371	490	286	249	308	.....	195	189	.....	190	211	160	4,608

TABLE X.—*Enrollment in elementary primary schools in cities of more than 100,000 inhabitants in 1891–92, 1896–97.*

Cities.	1891–92.				1896–97.				Increase or decrease, 1891–92, 1896–97.
	Population.	Enrollment.			Population.	Enrollment.			
		Public.	Private.	Total.		Public.	Private.	Total.	
Paris	2,477,957	150,327	92,155	242,482	2,536,834	153,072	87,392	240,464	−2,018
Lyon	416,029	20,578	19,764	40,342	466,028	19,801	18,668	38,469	−1,873
Marseille	403,749	22,518	20,113	42,631	442,230	27,592	21,209	48,801	+6,170
Bordeaux	252,415	[a] 14,330	[a] 13,635	27,965	256,906	15,654	13,010	28,664	+ 699
Lille	201,211	[b] 17,511	[b] 16,778	35,268	216,276	16,599	[c] 23,275	41,225	+5,957
Toulouse	149,791	9,108	8,278	17,446	149,963	8,697	8,104	16,801	− 645
St. Étienne	122,750	10,485	7,946	18,431	136,060	10,509	8,360	18,869	+ 438
Roubaix	133,443	11,691	8,308	19,994	124,661	10,864	7,715	18,579	−1,415
Nantes	112,359	.....	.....	.....	123,902	6,122	7,771	13,893	.....
Le Havre	116,369	8,856	4,688	13,544	119,470	10,234	4,988	15,222	+1,678
Rouen	114,917	7,583	6,998	14,581	113,219	7,455	6,839	14,294	− 287
Rheims	104,186	.....	.....	.....	107,962	8,444	6,987	15,431	.....

[a] 1890. [b] 1893. [c] 1897.

TABLE XI.—*Showing for cities of more than 100,000 inhabitants the ratio of primary school enrollment to total population and the ratio of public school enrollment to total enrollment.*

Cities.	Ratio of total enrollment to population.		Ratio of public school enrollment to total enrollment.	
	1891-92.	1896-97.	1891-92.	1896-97.
	Per cent.	*Per cent.*	*Per cent.*	*Per cent.*
Paris	9.78	9.47	61.99	63.65
Lyon	9.69	8.25	51	51.47
Marseille	10.55	11.02	52.82	56.41
Bordeaux	11.07	11.15	51.24	54.61
Lille	17.04	18.43	49.65	40.26
Toulouse	11.64	11.20	52.25	51.64
St. Étienne	15.01	13.86	56.88	55.69
Roubaix	14.98	14.90	58.47	58.46
Nantes	.....	11.21	.....	44.08
Le Havre	11.63	12.75	65.38	67.23
Rouen	12.68	12.62	75.83	52.15
Rheims	.....	14.29	.....	54.72

The latest statistical annuaire of the city of Paris, published in 1902, gives the following educational information for that city covering the year 1900–1901:

Enrollment in primary schools, 1900–1901.

Classes.	Infant schools (écoles maternelles).			Primary schools (elementary and higher).						Total primary.		
				Boys.			Girls.					
	Schools.	Teachers.	Pupils.	Schools.	Teachers.	Pupils.	Schools.	Teachers.	Pupils.	Schools.	Teachers.	Pupils.
Public	167	769	53,179	202	1,820	85,472	198	1,730	73,714	400	3,550	159,186
Private:												
Secular	58	102	9,015	62	163	4,940	417	1,221	19,524	479	1,384	24,464
Clerical				70	433	17,092	159	1,051	36,783	229	1,484	53,875
Total	225	871	62,194	334	2,416	107,504	774	4,002	130,021	1,108	6,418	237,525

The enrollment in the public classes for adults in Paris, corresponding to our city evening schools, was 4,094 (2,507 men, 1,587 women). The examination for the certificate of primary studies was attended by 28,197 day school pupils, of whom 21,377 passed, and by 1,353 from the adult classes, of whom 1,024 passed.

There are eight municipal high schools (écoles primaires supérieures) included in the foregoing table, six for boys and two for girls; the former enrolled 4,681 pupils, the latter 710, total 5,391. The seven municipal technical schools for boys, not included in the table, enrolled 1,419 pupils, and the six industrial schools for girls (for instruction in household arts, dress making, bookkeeping, etc.) enrolled 1,514 pupils.

There are also reported 138 workshops for iron and wood work connected with the public primary schools.

The public secondary schools for boys (lycées and colleges), which include primary divisions, enrolled 11,243 students, of whom 4,896 were in the classical course, 2,310 in the modern course, and 4,037 in mixed courses.

The five lycées for girls were attended by 1,574 pupils.

The total expenditure of the city for primary education (including infant schools, elementary and higher primary schools, and technical schools) was 28,256,345 francs ($5,651,269).

This included the State appropriation for the city schools of 2,704,373 francs ($540,874), which is turned over to the city authorities.

We complete our survey of primary education, which is intended to secure at least that all citizens shall master the elements of knowledge, by the latest statistics of illiteracy.

Status of conscripts with respect to illiteracy, 1899.

	Number of conscripts.							Total.
	Unable to read or write.	Able to read only.	Able to read and write.	Having a higher degree of elementary education.	Possessing the certificate of primary studies.	Possessing the bachelor's degree.	Attainments not reported.	
France and Algiers.	15,153	5,095	40,811	243,961	4,946	6,562	12,779	329,327
Percentage	4.5	1.5	12.4	74.1	1.5	2.	4.	

Secondary Education.

To the department of secondary instruction (director, M. Rabier) belong the lycées, or State classical colleges, for boys, the State lycées for girls, and the communal colleges established by the communal or local authorities and aided by the State. In 1901 the lycées for boys numbered 109 and enrolled 54,830 pupils. The communal colleges numbered 227, with an enrollment of 33,372. This gives a total of 88,202 boys in the public secondary schools. The church secondary schools for boys in 1899 enrolled 91,825 pupils (of these 23,000 in the petits séminaires for students intending to enter the priesthood) and private secular secondary establishments for boys, 10,182.

The public lycées and colleges for girls had an enrollment in 1901 of 14,162 students, and there were also 4,158 girls pursuing courses of secondary instruction in classes under public auspices. The attendance upon convent and private secondary schools for girls is not known.

The professors of secondary instruction (public) are appointed by the minister of public instruction. Their salaries, like those of the professors of superior instruction, are paid by the State, and they are also borne on the pension list.

The lycée is the typical secondary school; the local colleges have the same curriculum so far as circumstances permit; often students pass from a college to a lycée for the completion of their studies.

The following statistics present a comparative view of the enrollment and distribution of secondary students for specified years from 1887 to 1901:

Enrollment in secondary schools for boys.

Classes of institutions.	1887.[a]	1892.[b]	1893.[b]	1894.[b]	1895.[b]	1896.[b]
State schools:						
Lycées	53,816	52,945	53,974	53,490	53,962	53,290
Colleges	36,086	32,508	32,709	32,421	32,161	32,224
Total	89,902	85,453	86,682	85,911	86,123	85,514
Schools of religious associations:						
Classical	50,085	51,087	51,377	56,205	57,250	58,506
Petits séminaires (preparatory to theological schools)	.....	23,948	23,849	25,364	25,407	21,737
Total	50,085	75,035	75,226	81,619	82,657	80,243
Private secular schools	20,174	16,306	14,028	14,214	12,011	13,599
Total non-State	70,259	91,341	89,254	95,833	94,668	93,842
Grand total	160,161	176,794	175,987	181,744	180,791	179,356

[a] From Statistique de l'enseignement secondaire des garçons, 1897, pp. lvi, lxxviii, xcviii.
[b] Rapports faits au nom de la commission de budget, etc.—Service de l'instruction publique, par M. Bouge, 1897, pp. 124, 125; also 1898, pp. 32, 33.

Enrollment in secondary schools for boys—Continued.

Classes of institutions.	1897.[a]	1898.[b]	1899.[b]	1900.[c]	1901.[c]
State schools:					
Lycées	52,427	51,892	52,708	52,969	54,830
Colleges	32,412	32,510	32,891	32,569	33,372
Total	84,839	84,402	85,599	85,538	88,202
Schools of religious associations:					
Classical	62,188	67,643	68,825	.....	.....
Petits séminaires (preparatory to theological schools)	22,381	23,497	23,000	.....	.....
Total	84,569	91,140	91,825	.....	.....
Private secular schools	12,813	9,725	10,182	.....	.....
Total non-State	97,382	100,865	102,007	.....	.....
Grand total	182,221	185,267	187,606	.....	.....

[a] Rapports faits au nom de la commission de budget, etc.—Service d l'instruction publique, par M. Bouge, 1897, pp. 124, 125; also 1898, pp. 32, 33.
[b] The same, by M. Perreau, 1901, pp. 69, 70.
[c] The same, by M. Maurice-Faure, 1902, pp. 443, 445.

Secondary education, as the term is technically used in France, comprises a complete scheme of education whose goal is the bachelor's degree. It is secondary, not in the sense of a second stage in a continuous process, as implied by the same term in the United States, but in the sense of a higher order of education than that technically termed primary. The distinction between the two arises from the notion that the learned classes, those who are destined for professional careers and for leadership in the State, should be educated from their earlier years in a different manner and in a different class of subjects from the laboring masses. Under this conception the term secondary education carries the idea both of social and of scholastic distinction. The men trained in the secondary schools lead the councils of the nation, shape its policies, and form the enlightened opinion which is essential to its stability; hence the Government is particularly concerned as to the influences which prevail in secondary education and as to its intellectual outcome. In both respects secondary education as organized in France has been unsatisfactory to the present Republic. As regards curriculum and methods of instruction this dissatisfaction is part of that general unrest in secondary education which is manifest in all countries and which in France as elsewhere has been of much longer duration than the Republic itself. This unrest, which is conveniently though inadequately summed up as the conflict between the classics and the sciences, is, in fact, an inheritance from the eighteenth century. The recent decree for the reorganization of the State secondary schools of France is the solution offered by the Republic for a problem which has occupied every successive government from the Revolution to the present time.

But the existing Government has a cause of anxiety with respect to secondary education quite apart from the question of studies and methods of instruction. Side by side with the State-endowed secondary schools, i. e., lycées and local (communal) colleges, are the private secondary schools, of which the greater part are in the hands of the religious orders. The studies of these independent schools, like those of the State schools are regulated by the requirements for the degree examination, which is a State function, but the spirit and general conduct of the former schools are very different from those of the State schools and apparently more in consonance with feelings of the higher classes of the country.

The decade 1887 to 1897 showed for the private schools a steady annual increase in attendance, while the State schools suffered a proportional decline. The number of students affected was not large, but the importance of the transfer

was greatly emphasized in Government circles by the growing conviction that the schools of the religious orders exercised an influence adverse to republican policies. The apprehensions caused by their increasing prestige and influence was one of the chief causes that led to the law subjecting the religious orders to the supervision of the State. The determination of the Government in this respect is evidenced by additional measures now pending, intended to limit still further the freedom of independent agencies in the sphere of secondary education. On the other hand, it should be observed that the advocates of the principle of "the liberty of instruction," as formulated in the famous law of 1850, utterly disclaim the charge that the schools of the religious orders are animated by a spirit disloyal to the Government.[a]

This disputed matter, which pertains wholly to the political conditions of France, is of less general interest than the measure for the reform of the State secondary schools. The principal features of this measure are set forth in the following citation from a very full exposition of the measure by Dr. Compayré, rector of the University of Lyon. In order to show more fully the bearing of the changes made in the scheme of secondary studies, the new programmes and time scheme tabulated by Dr. Compayré are brought into comparison with the scheme which these replace and also with the general plan of the lycées as formulated by M. Duruy in 1865. To this celebrated minister is due the first comprehensive measure for the adjustment of the secondary programmes to modern demands, and though some portions of his plan were soon discarded, it has furnished a substantial basis for all subsequent efforts in the same direction.

For the purpose of indicating the historic relations of the late reform, a chronological outline of the movement of secondary instruction in France since the Revolution is appended.

THE PRINCIPAL MODIFICATIONS RESULTING FROM THE RECENT LEGISLATION.[b]

Cycles.—Henceforth [says Dr. Compayré] secondary instruction comprises two cycles, one of four years' duration, the other of three. The studies are arranged in such a way that the pupil, at the end of the first cycle, has already acquired some definite knowledge, which doubtless is small and limited, yet is capable of immediate use in case he should push his studies no further. In order to define well the separation between the two cycles, those pupils who finish their fourth year are called upon to pass an examination, on the completion of which they may obtain a certificate of secondary studies. There is reason to suppose that a certain number of students, those on whom the necessities of life press hardest, or those who have no very decided taste for higher studies, will, after this period of four years, leave the lycée to enter active life and take up a profession.

The four classes of the first cycle retain their present names of sixième, cinquième, quatrième, and troisième.

The second cycle is divided into three classes, the seconde, the première, and, above them, the class of philosophy and mathematics. At the end of this new series the pupils present themselves for the bachelor's degree, which is the final sanction of secondary instruction.

Duration of studies.—The duration of the studies is, therefore, seven years for all pupils who continue their course to the end. It is a year less than in the high schools and colleges of the United States, and in Germany also the period of study is longer. But there is good cause for thinking that seven years are sufficient, and, in any event, the new rule adds a year for the pupils of what we called the "modern secondary" course, the duration of which was only six years. We

[a] The opposite views of the law respecting the religious orders are illustrated by two articles, one by M. F. Buisson, wholly favorable to the Government policy, published in the Manuel Général of October 4, 1902, and a second article, opposing the extreme policy of the Government, by M. Anatole Leroy-Beaulieu, published in the Revue des Deux Mondes of March, 1903. As this matter goes to press the announcement is made that the Chamber of Deputies, by a vote of 300 to 257, has adopted a law refusing authorization for all the religious associations of men engaged in teaching.

[b] From article by Dr. Compayré in the Educational Review for February, 1903.

must thank the reformers of 1902 for having resisted the imprudent impatience of unwise pedagogs who, to fall in with our busy, hurried social order, advocate the expeditious methods of rapid preparation. The virtue of secondary teaching lies, in large measure, in its duration, in its slow influence upon the intellect. The best teachers need the help of time, if they wish, not to furnish the memory with hastily acquired and badly digested knowledge, but to act upon intellectual habits and accomplish the education of the mind, which is truly the essential aim of secondary instruction.

Sections.—It is in this that the great change brought about by the reform appears. For a long time our secondary teaching knew but a single form, the elements of which were Latin and mathematics. Therefore there was only one category of pupils, all subject to one same programme. Toward the middle of the last century it began to be understood that the same studies were not suitable for all scholars, and Minister Fortoul, during the Second Empire, conceived the plan of separating the pupils into two sections, beginning with the third class. Some were to specialize in literature, the others in the sciences, but they were all to be united for the common subjects of study, Latin translation and French composition. This is what was called the bifurcation system. Some ten years later M. Duruy, one of the greatest ministers public education ever had at its head, preoccupied by the economic needs of modern society, created alongside the classical course the so-called special course, which, he intended, was to prepare students, by more practical study in the sciences and modern languages, for industrial, commercial, and agricultural pursuits. In 1890 this special course was followed by the "modern course," the creators of which proposed, without the aid of Latin and Greek, to give instruction of a general nature that should not be professional in character, and also might be the equivalent of the classical course. We were, so far, with only two branches in our system, which led pupils to bachelor's degrees that were absolutely distinct and that did not confer the same privileges. Now we shall have four. The system adopted is no longer a bifurcation, but a quatrifurcation.

In the first cycle, however, where the necessity for the same subjects of study is more imperative, we have stuck to the bipartite arrangement. During the first four years of school two parallel courses will be offered to the choice of families and pupils: One, Section A, in which, independently of the studies common to both sections, Latin will be taught from the first year, and Greek, but only optionally, from the end of the third year (quatrième); the other, Section B, which does not carry with it instruction in Latin and Greek, but in which more attention is paid to the teaching of French, the sciences, and drawing.

The full division into sections comes only in the second cycle. Here four groups of studies are offered to the scholars who enter the troisième:

Section A: Latin, with Greek.

Section B: Latin, with more thorough study of the modern languages.

Section C: Latin, with fuller study of the sciences.

Section D: The study of languages and sciences without a Latin course.

Only pupils from Section A of the first cycle, those who have already studied Latin, may enter the first three sections of the second cycle, where Latin is more or less fully taught. Into Section D will be admitted the pupils from Section B of the first cycle and also those pupils from Section A—and there will certainly be many of them—who do not care to continue their study of Latin.

Let us observe at once how much this division into sections resembles what you intend carrying out in America. Your high schools, with their four years of secondary studies, correspond to our first cycle, and exactly four distinct courses are what your committee of ten, in 1893, proposed for high-school teaching when it published its fourth table; the classical course, with three foreign languages one of them modern (Latin, Greek, and French or German); the Latin-scientific, with two foreign languages, one of them modern; the modern-language course, with two foreign languages, both modern; and finally the English course, with one foreign language, either ancient or modern.

There is no need of dwelling upon the importance of the reform. We wished to give the pupils the means of choosing the instruction best adapted to their capabilities and their presumable vocation, and also to the economic needs of the districts in which they live. They will now be able at their pleasure to take one road or another, and so work more competently and more enthusiastically, and succeed better in studies which they have of their own accord preferred to others.

Up to the present time there was in the classes of our lycées too large a number of pupils who followed, with no profit, instruction for which they were not fitted. They encumbered the classes, where they formed a kind of corpus mortuum and

embarrassed the teacher, whom they reduced to this dilemma, either not to take them into account, considering them a negligible quantity, or, if he wished to be of service to them, to lower his methods of instruction and check the progress of those of their fellow-pupils who could and would go on.

With the variety of the many directions which our pupils may take nowadays, we may reasonably hope that every one of the four parallel courses will be made up of a homogeneous group, where there will be fewer laggards and where everybody will profit by the teacher's lessons.

Note, too, how the optional principle, as made a law in France, differs from what you have set up as a standard in the United States. The French schoolboy can henceforth choose, at least in the latter half of his studies, one of four different ways; but the programme of every one of these is fixed in advance and is obligatory in all its parts. With you, on the contrary, a pupil in one section may, if he wishes, take a part from the course of another section. He enjoys full liberty of choice among all the subjects composing the broad, ideal plan of complete secondary education. To make the difference very plain, let us use a comparison. In a French lycée there are, as if in a railway terminus, four trains about to start. In them travelers to the land of knowledge seat themselves according to their preferences. But once they are shut up in their compartments they must go on to the end toward the destination to which the train is to take them. They can not leave their car at one station or another, to change for one of the other parallel trains. American secondary education affords just this facility to its students; they have the right, if they wish, to leave the car of the line where they engaged a seat, for another car and another line. It is not impossible that experience will lead us on in the near future to further progress, consisting in the substitution of absolute freedom of election among the different subjects of instruction for the limited choice permitted from this time on; so that there would not be four groups of studies only, but a far greater number of combinations, directed and determined, not by an immovable programme, but by the free will of the pupils.

Examinations and degrees: Another difference between the American plan and ours is that in the United States you maintain the diversity and multiplicity of baccalaureates. You have the baccalaureate in arts, corresponding to our former baccalaureate; the baccalaureate in science, the baccalaureate in letters, almost the equivalent of what the modern baccalaureate was in France, and the baccalaureate in philosophy, without counting the degrees in chemistry, mechanical engineering, architecture, agriculture. In a word, you believe that different rewards and titles should answer for different studies. The contrary opinion has just prevailed with us.

We have but one bachelor's degree, the "baccalaureate of secondary education." Doubtless the pupils in the four sections will not have to pass the same kind of examinations. The written and oral tests to which they will be held will vary with the section they have chosen. But, notwithstanding the diversity of examinations, it has been decided that the diploma to which they lead, if taken successfully, will have the same advantages. In short, diversity of examinations, unity of degrees, and equality of the prerogatives attached to them—such is now our scholastic law. The diplomas of this single baccalaureate will open to their holders all the professions, even law and medicine. Till now the bachelor coming from the modern course could not register as a student under the faculties of law and medicine. Among other reasons for this inequality was the fact that the studies of the modern course lasted only six years and those of the classical seven. Now that all courses are of equal length, and end by equivalent though different examinations, where the knowledge of Greek and Latin may be replaced by thorough acquaintance with the sciences and the modern languages, we thought there was no longer any great reason for preserving any inequality as to privileges.

Another important change made in the regulation of the baccalaureate consists in having the examination committees (jurys d'examen) composed in part—as they have been already for the modern baccalaureate—of secondary teachers. It is well known how much and how justly has been criticised the old system of intrusting to the professors of the faculties—that is, to university men—the charge of creating bachelors. This meant turning them from their true functions, taking them away from higher instruction to burden them for a portion of the year with the weight of examinations of a lower grade of instruction. A German has said: "In France you take the best-tempered razors to cut pebbles."

For the time being it did not seem possible to relieve the faculty professors completely of this heavy task, but in the different juries there will be associated with them professors from the lycées—three of them if the jury has six members,

two if it has only five. Moreover, the chairmanship of the jury is always in the hands of one of the representatives of the higher branch of instruction.[a]

Subjects of instruction: The subjects of instruction have, naturally, remained the same, being those for a long time recognized by all civilized countries as the necessary elements for general culture and the formation of the mind. They have only been divided and distributed differently from what they were in the old programme, the number of hours devoted to them having been increased or diminished. The intellectual food is still the same; there are the same dishes as formerly, but they are served on several tables, one dish appearing on the menu of one table and not on another, or, if so, in smaller quantity.

Nevertheless the spirit of the instruction, of its methods and its processes, has changed greatly. It has been determined to give a practical turn to certain studies. For example, modern languages will be taught especially from the point of view of their use. Till now they were taught rather from the literary and grammatical standpoint, and in the modern course they were to take the place of Greek and Latin as instruments of intellectual culture. That is no longer the purpose we assign to them in the new courses of study. Now the attempt must be made to teach how to speak and write them. "The aim which the teaching of a modern language must have, during the course of secondary studies," say the instructions accompanying the legislative act, "must be to give the pupil real and effective mastery of that language. * * * The language to be taught, therefore, shall be, not the literary language, but the usual, current speech, that which translates into words all the manifestations of physical, intellectual, and social life. Consequently the direct method must be used, taking as a basis not the mother tongue, but the foreign language. In all the course the teacher will use especially the foreign language; he will forbid himself the use of French."

In like manner, for the study of French, the instructions advise teaching rules by usage. "The teacher must miss no opportunity of showing the pupils that they apply them instinctively. He must constantly connect his instruction with the examples furnished him by the written or spoken language."

Some other regulations give evidence of the positive and practical tendencies of the new plan of studies. For instance, the practical exercises in science introduced in the seconde and première classes and the teaching of ordinary principles of law in the troisième class of Division B. Observe also the innovation of bringing in a course in practical ethics into the quatrième and troisième classes. Up to the present time instruction in ethics was given only in the philosophy class, and then in an abstract and theoretical form. Now, from the first cycle it will be taught, not by a scientific discussion of the principles of ethics, but by a familiar exposition of the principal duties of man. The programme says that this instruction shall consist of "systematic readings, recitations, and talks, planned to strengthen sentiment favorable to moral development and to counteract opposite tendencies."

The practical aims of the reformers of 1902 are seen finally in the establishment of a special programme of studies, an outside section, so to speak, the principal purpose of which will be the study of the modern languages and the sciences especially from the standpoint of their application. This course of studies will be formed for pupils who have completed the classes of the first cycle and who do not aspire to the baccalaureate. It will last only two years, and may vary in its programmes according to the needs, the particular industries, and the economic conditions of each district. The programmes will be made up by the local authorities and approved by the minister of public education. On the completion of this course the pupils will be called upon to pass an examination, at the end of which a certificate of studies will be given them. This is an interesting first step in the path of decentralization, since this course, opening up a fifth road to students, is not subject to a uniform and unvarying programme, but must be adapted, as to the variety of its subjects of instruction, to the diversity of needs of the districts where it is to be given.

Such is, in its entirety, the new plan of studies for our system of secondary education. In constructing it its authors have also considered its coordination with primary education. What you call in America the "articulation of the school with the college" is an embarrassing problem for us also. It is complicated by the fact that the pupils in the system of secondary education, on entering the sixième class, come from two different sources. Some are from the public pri-

[a] Observe, too, that the examinations for the baccalaureate are divided into two series at an interval of a year. The first part is taken at the end of the première class; the second after the last year of study, that of philosophy and mathematics.

mary school; the others have already had a course of primary studies, lasting usually four years, in the college or lycée. Now, the programmes of the public school and of the primary classes of the colleges and lycées are not identical in every point. Some years ago, it is true, Latin was done away with in the huitième and septième classes, where pupils formerly began to study it; but in return the elements of modern languages were introduced on the plea that the modern languages can not be really learned unless one begins the study of them early. Nothing better, if modern languages were taught also in the public schools; but they are not, and it seems impossible that they will be. Another solution would have been to give up German and English in the primary classes of the colleges and lycées. But that has not been decided upon as yet, and with the new plan of studies, which maintain two hours of modern languages in the neuvième, huitième, and septième classes, the difficulty remains. We shall continue to receive into the sixième class, the first one in the secondary course, pupils some of whom already know a little English or German, while the rest have not studied these languages at all and are on an inferior footing as compared with their classmates.

However this may be, we have every reason for expecting the happiest results from the thorough recasting that has been carried out in the economy of our plans of studies. There will be undoubtedly great difficulties in application, for it is always easier to conceive a reform than to execute it. It will take some time for the teaching staff to fit itself to the new tasks laid upon it. The creation of new officers and also some suppressions will be necessary. The difficulties, moreover, can not be removed in any other way, if we do not increase the number of new professorships in the modern languages and the sciences, to which the reform gives a much greater field than before, except by uniting the pupils of different sections for those subjects which are the same for all. Consequently there is sure to be some disorder and confusion at first. But gradually matters will be set right and experience will suggest certain modifications in a system which, good as it is, is not, however, either irreproachable or unalterable. We have a proof of this in that the new arrangement has already raised numerous criticisms, some of which may seem well founded.

Programme of secondary instruction.

FIRST CYCLE.

[Duration, four years from the sixième to the troisième.]

SIXIÈME.

Division A.	Hours.	*Division B.*	Hours.
French	3	French	5
Latin	7	Penmanship	1
Modern languages	5	Modern languages	5
History and geography	3	History and geography	3
Arithmetic	2	Arithmetic	4
Natural science	1	Natural science	2
Drawing	2	Drawing	2
Total	23	Total	22

CINQUIÈME.

French	3	French	5
Latin	7	Penmanship	1
Modern languages	5	Modern languages	5
History and geography	3	History and geography	3
Arithmetic	2	Mathematics	4
Natural science	1	Natural science	2
Drawing	2	Drawing	2
Total	23	Total	22

QUATRIÈME (2).

Ethics	1	Ethics	1
French	3	French	5
Latin	6	Bookkeeping	1
Greek (optional)	3	Modern languages	5
Modern languages	5	History and geography	3
History and geography	3	Mathematics	4
Mathematics	1 hour (optional) +1	Physics and chemistry	2
Natural science	1	Drawing	2+1
Drawing	2		
Total	4 (optional) +22	Total	24

TROISIÈME (2).

Ethics	1	Ethics	1
French	3	French	4
Latin	6	Elements of law	1
Greek (optional)	3	Modern languages	5
Modern languages	5	History and geography	3
History and geography	3	Mathematics	3
Mathematics	1 hour (optional) +2	Physics and chemistry	2
Drawing	2	Natural science	1
		Bookkeeping	1
		Drawing	2+1
Total	4 (optional) +22	Total	24

SECOND CYCLE.

[Duration, three years; from the seconde to the class of philosophy and mathematics.]

SECONDE.

	Section A: Greek, Latin.	Section B: Latin, modern languages.	Section C: Latin, sciences.	Section D: Sciences, modern languages.
	Hours.	*Hours.*	*Hours.*	*Hours.*
French	3	3	5	5
Latin	4	4	4	
Greek	5			
Modern history	2	2	2	2
Ancient history	2	2		
Geography	1	1	1	1
Modern languages	2	[a]7	2	[a]7
Mathematics	1	1	3	3
Physics and chemistry	1	1	3	3
Practical exercises in science	2	2	2	2
Drawing	2	2	4	4
Geology [b]				
Total	25	25	26	27

[a] Four hours in the second language.
[b] Twelve lectures, of one hour each, for the four sections.

PREMIÈRE.

	Section A.	Section B.	Section C.	Section D.
	Hours.	*Hours.*	*Hours.*	*Hours.*
French	3	3	3	3
Latin	3	3	3	
Latin exercises	2	[a]2		
Greek	5			
Modern history	2	2	2	2
Ancient history	2	2		
Geography	1	1	1	1
Modern languages	2	[b]7	2	[b]7
Mathematics	1	1	5	5
Physics			3	3
Physics and chemistry			3	3
Practical exercises in science			2	2
Drawing (optional)	2	[a]2	1	1
Total	23	23	25	27

[a] Optional.
[b] Four hours for the second language.

Programme of secondary instruction—Continued.

CLASSES OF PHILOSOPHY AND MATHEMATICS.

	Philosophy.		Mathematics.	
	Section A.	Section B.	Section A.	Section B.
	Hours.	*Hours.*	*Hours.*	*Hours.*
Philosophy	[a] 8	[a] 8	3	3
Do	[a] 9	[a] 9		
Greek and Latin	[b] 4			
Latin		[b] 2		
Modern languages	[b] 2	1+2	2	1+2
History	3	3	3	3
Mathematics	2	2	8	8
Physics and chemistry	3	3	5	5
Natural sciences	2	2	2	2
Practical exercises in sciences			2	2
Drawing	[b] 2	[b] 2	[c] 2+2	[c] 2
Hygiene[d]				
Total	[e] 18½	[f] 21½	[c] 27+2	[c] 28

[a] During 1 semester. [b] Optional. [c] Plus 2 hours optional. [d] Twelve lectures of one hour each. [e] Plus 8 hours optional. [f] Plus 4 hours optional.

The organization of the lycée classical course under the decree of August 8, 1890, which is replaced by the plan above described, was as follows:

Organization of the lycée classical course.

Elementary division: Average age (years).

Preparatory class (classe préparatoire) 8
Eighth (huitième) 9
Seventh (septième) 10

[Certificate of studies (certificat d'études) to be obtained before admission to the sixième.]

Division of grammar:

Sixth (sixième) 11
Fifth (cinquième) 12
Fourth (quatrième) 13

[Certificat d'études necessary for the troisième.]

Superior division (division supérieure):

Third (troisième) 14
Second 15
Rhetoric 16

[First examination for bachelor's degree.]

Philosophy 17

[Second examination for bachelor's degree.]

In the class of philosophy options are allowed between three courses; according to the choice the student has his diploma inscribed, "Lettres philosophie," "Lettres mathématiques," or "Lettres sciences, physiques et naturelles."

Programme of 1890.

DIVISION OF GRAMMAR.

SIXIÈME.

	Hours.		Hours.
French	3	General geography of the world	1
Latin	10	Drawing	1½
Modern languages	1½		
Zoology; arithmetic	1½	Total	20
Ancient history of the Orient	1½		

CINQUIÈME.

French, Latin, and from January 1 Greek	13	Greek history	1½
Modern languages	1½	Geography (France)	1
Geology (first semester), botany (second semester), and arithmetic	1½	Drawing	1½
		Total	20

The thirteen hours given to French, Latin, and Greek are divided as follows:

Until January 1:		After January 1:	
French	3	French	3
Latin	10	Latin	8
		Greek	2

QUATRIÈME.

	Hours.		Hours.
French	2	General geography and geography of America	1
Latin	5	Drawing	1½
Greek	6	Total	20
Modern languages	1½		
Geometry	1½		
Roman history	1½		

SUPERIOR DIVISION.

TROISIÈME.

	Hours.		Hours.
French	2	History of the Middle Ages	1½
Latin	5	Geography (Africa, Asia, Oceania)	1
Greek	5	Drawing	1½
Modern languages	1½	Total	20½
Mathematics (2 lessons of 1½ hours each)	3		

[Lessons in geography are given outside of the regular class hours.]

SECONDE.

	Hours.		Hours.
French	3	Geography (Europe)	1
Latin	5	Drawing (optional)	2
Greek	5	Total	20½
Modern languages	1½		
Mathematics	1½		
History of the Middle Ages and modern times	1½		

RHÉTORIQUE.

	Hours.		Hours.
French	4	Modern history	1½
Latin	4	Geography (France)	1
Greek	4	Drawing (optional)	2
Modern languages	2½	Total	20½
Mathematics	1½		

[One hour a week is reserved for a lecture on history and geography; also during the year fifteen hours are given to instruction in cosmography.]

PHILOSOPHIE.

	Hours.
Philosophy:	
First semester	6
Second semester	7½
Physics and chemistry	4½
Elements of natural history	1½
Contemporary history:	
First semester	3
Second semester	1½
Drawing (optional)	2
Total	17

[One lecture a week on living languages (attendance optional). Twelve lectures on hygiene of one hour each are given during the year.]

Organization of lycée, under the decree of 1865, embodying plan of Minister Duruy.

ELEMENTARY DIVISION (division élémentaire).		Average age.
Preparatory class (classe préparatoire)	years	8
Eighth (huitième)	do	9
Seventh (septième)	do	10
[Certificate of studies (certificat d'études) to be obtained before admission to the sixième.]		
DIVISION OF GRAMMAR.		
Sixth (sixième)	years	11
Fifth (cinquième)	do	12
Fourth (quatrième)	do	13
[Certificat d'études, necessary for the troisième.]		
SUPERIOR DIVISION (division supérieure).		
Third (troisième)	years	14

Election allowed between the two following:

COURSE OF LETTERS (classes de lettres).		Average age.
Second	years	15
Rhetoric	do	16
[First examination for diploma of bachelor of letters (baccalauréat ès-lettres).]		
Philosophy	years	17
[Second examination for bachelor of letters.]		

COURSE OF SCIENCES (classes de sciences).		Average age.
Preparatory mathematics, years		15
Elementary mathematics, years		16
[Examination for diploma of bachelor of sciences (baccalauréat ès-sciences).]		

Distribution of time in the classical course of the lycées at specified dates.—Studies and number of class hours a week assigned to each.

	Classes.					
	Sixth (sixième).	Fifth (cinquième).	Fourth (quatrième).	Third (troisième).	Second.	Rhetoric.
Total Latin, Greek, French, 1865	17	17	16	14	14	16
Latin, 1885	10	10	[b] 5	5	4	4
		[a] 8	[a] 6			
Greek, 1885			6	5	5	4
		[a] 2				
French, 1885	3	3	2	2	3	4
Total, 1885	13	13	13	12	12	12
Latin, 1890	10	10	5	5	5	4
		[a] 8				
Greek, 1890			6	5	5	4
		[a] 2				
French, 1890	3	3	2	2	3	4
Total, 1890	13	13	13	12	13	12
Section A:						
Latin, 1902	7	7	6	6	4	5
Greek, 1902			[c] 3	[c] 3	5	5
French, 1902	3	3	3	3	3	3
Total, 1902	10	10	12	12	12	13
Living languages, generally English or German:						
1865	2	2	2	2	2	2
1885	2	2	2	2	2	2
1890	1½	1½	1½	1½	1½	2½
1902	5	5	5	5	2	2
History and geography:						
1865	2	2	2	2	3	3
1885	3	3	3	3	3	3
1890	2½	2½	2½	2½	2½	2½
1902	3	3	3	3	5	5
Science: [d]						
1865	1	1	2	4	4	2
1885	2	2	2	3	3	3
1890	1½	1½	1½	3	1½	1½
1902	3	3	[e] 2	[e] 2	4	1
Drawing:						
1865	1	1	2	2	2	2
1885	2	2	2	2	2	2
1890	1½	1½	1½	1½	[c] 2	[c] 2
1902	2	2	2	2	2	2
Religion, 1865	1	1	1	1	1	1
Ethics, 1902			1	1		
Total number of hours:						
1865	[f] 24	[f] 24	[g] 25	25	[h] 26	[i] 26
1885	22	22	22	22	22	22
1890	20	20	20	20½	20½	20½
1902	23	23	[j] 22	[j] 22	25	23

[a] Second semester.
[b] The extra hour given to Latin in the second semester is taken from science.
[c] Optional.
[d] Includes mathematics, physical sciences, and natural history.
[e] Also 1 optional.
[f] In addition 2 hours for music and 2 for gymnastics.
[g] In addition 2 hours for music.
[h] Music optional.
[i] Also 2 hours for music and 2 for gymnastics optional.
[j] Plus 4 optional.

CLASS OF PHILOSOPHY.

	1865.	1885.	1890.	1902 (section A).
Philosophy	8	8	[a] 6 [b] 7½	[c] 8 [d] 9
Classics (reviews)	2	1		[e] 4
History	2	2	[c] 3 [d] 1½	3
Modern languages	2	1	[e] 1½	[e] 2
Science	10	8	6	7
Religion	1			
Drawing	2	2	[e] 2	[e] 2
Music	2			
Total	29	22	[f] 18½	[g] 26½

[a] First semester. Includes classical and modern authors.
[b] Second semester. Includes classical and modern authors.
[c] First semester.
[d] Second semester.
[e] Optional.
[f] 15+3½, optional.
[g] 18½+8, optional.

CHRONOLOGICAL VIEW OF SECONDARY SCHOOLS IN FRANCE, INDICATING THE COURSE OF THE CONFLICT BETWEEN CLASSICS AND SCIENCES.

1793. Destruction of old classical colleges, course of study in these as follows: Six years of letters (Latin, Greek, French); two years of philosophy, including elements of mathematics and physics. (Instruction given in Latin in classes of philosophy.)

1795. Law creating écoles centrales; programme including drawing, natural history, ancient languages (one professor), living languages, mathematics, physics, chemistry, and in the upper section general grammar, history, and legislation. (Schools essentially scientific; very few established.)

1802. Lycées created; programme organized in two parallel courses, viz. classical course (without Greek) and mathematical course.

1809. Consolidated course substituted for parallel courses; Greek restored.

1815. Lycées changed to Royal Colleges.

1821. Ancient supremacy of letters restored; mathematics postponed to, and natural history included in, classes of philosophy. (Instruction in philosophy again given in Latin.)

1826. Extension of mathematics from two to four years (without diminution of time allowed for literary studies).

1829. Attempt to reorganize secondary studies, with provision for living languages, extension of history, substitution of French for Latin as the medium of instruction in philosophy (never practically realized).

1840. Cousin, minister of public instruction, restores exclusively literary character of the regular course of secondary studies; special provision for scientific students (not leading to degree).

1847. Statute restoring sciences to regular programme.

1850. Name lycée restored.

1852. Secondary schools reorganized in accordance with the statute of 1847. Latin omitted from elementary section. Full course organized in two divisions—division of grammar, common to all students; superior division, two parallel courses, viz, course of letters, course of sciences. Two baccalaureates instituted—letters, sciences.

1863. Bifurcation advanced one class.

1864. Bifurcation suppressed in all classes.

1865. Lycées reorganized by Minister Duruy; bifurcation after second class, or for three upper classes; two degrees, viz, bachelor of letters, bachelor of sciences. Special course of four years created for modern studies.

1872. Jules Simon, minister of public instruction, issues circular proposing change in methods and standards of secondary schools.

1880. Programme modified; time devoted to Latin, Greek, and French in classical section slightly decreased; time for history, geography, and sciences proportionately increased.

1885. Time for letters slightly increased, with loss of time for sciences and modern languages.

1890. Lycées reorganized; bifurcation suppressed; time for Latin, Greek, and French increased, with loss to sciences, modern languages, history, and geography. Options allowed in philosophy between three branches. Single diploma inscribed with the elected study, i. e., "Lettres, philosophie;" "lettres, mathématiques;" "lettres, sciences physiques et naturelles." Special secondary course changed to modern secondary of six years, with extension on the side of culture studies; electives allowed in the last year; new special diploma created, baccalaureate of modern secondary studies.

1901. Lycées reorganized; studies arranged in two cycles, one of four years, the other of three years.

First cycle offers two courses: (1) Classical course, with obligatory Latin throughout and optional Greek from the end of the third year; (2) Scientific course, without Latin or Greek.

Second cycle offers for election four groups of studies: (1) Latin, with Greek; (2) Latin, with extended study of modern languages; (3) Latin, with extended study of sciences; (4) modern languages and science, without Latin.

Single baccalaureate.

Higher Education.

To the department of higher education (Director M. Liard) belong the universities and the special schools of university rank which are under the minister of education.[a] Paris is the seat of these special schools, and also of the principal university. Under the law of 1896, 15 of the former faculty groups have been organized into independent universities. They registered 29,377 students in 1900, an increase of 11,772, or 68 per cent above the number enrolled in the faculties in 1888.

The professors of the State universities are appointed by the President of the Republic in advice with the minister of public instruction. The choice is made from two lists, one furnished by the university council, the other by the superior council of public instruction. The salaries of professors are paid by the State, and they have a right to a pension.

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[a] Collége de France (appropriation, 1900, $104,600), Museum of Natural History (appropriation, $193,500), Practical School of High Studies [École Pratique des Hautes Études (State appropriation, $64,200; city, $7,200)], Superior Normal School (110 students; appropriation, $103,120), School of Charts [École Nationale des Chartes (students, 69; appropriation, $14,990)], School of Oriental Languages (students, 415; appropriation, $33,600), French School of Archæology at Rome (appropriation, $14,600), French School at Athens (appropriation, $21,000), École Nationale des Beaux Arts (students, 2,000; appropriation, $84,052). The remaining special schools, such as the Conservatoire des Arts et Métiers, École Nationale Supérieure des Mines, etc., are under the charge of other ministers.

Distribution of university students in the different faculties.

Faculties.	Number of university students.			
	Jan. 15, 1900.		Jan. 15, 1901.	
	State universities.	Independent universities.	State universities.	Independent universities.
Law	9,709	1,109	10,152	906
Medicine	8,781	151	8,627	139
Sciences	3,857	185	3,910	156
Letters	3,476	168	3,723	181
Pharmacy	3,395	16	3,347	14
Protestant theology	159	.....	143	.....
Total	29,377	1,629	29,901	1,486

Distribution of students in State universities.

Designation of university.	Faculties, 1887–88.		Universities, 1897–98.		1900.	1901.[d]
	Number of students.[a]	Income.[a]	Number of students.[b]	Income.[b]	Number of students.[c]	Number of students.
Paris	9,140	$685,284	12,131	$1,005,558	12,192	12,289
Aix Marseille	433	94,261	849	129,983	772	950
Besançon	130	43,797	197	54,026	237	252
Bordeaux	1,029	142,064	2,144	219,656	2,124	2,119
Caen	531	101,556	772	130,687	609	646
Chambéry	.....	2,600	.....	2,620	.....	.....
Clermont	96	45,492	257	53,027	279	290
Dijon	236	69,897	604	91,002	649	699
Grenoble	318	65,431	476	86,192	558	566
Lille	810	138,357	1,425	195,057	1,141	1,110
Lyon	962	175,640	2,335	250,940	2,465	2,458
Montpellier	890	156,110	1,496	188,960	1,531	1,610
Nancy	454	158,255	1,001	197,377	1,064	1,027
Portiers	391	82,310	944	111,710	752	821
Rennes	659	114,345	1,508	161,992	1,135	1,139
Toulouse	1,303	120,618	1,895	181,450	2,002	2,040
Schools of medicine not included in the universities.	.....	.....	.....	.....	1,005	1,025
Algiers	223	98,623	763	112,329	862	881
Total	17,605	2,294,640	28,782	3,172,546	29,377	29,931

[a] Statistique de l'enseignement, 1878–1888, pp. 133–418.
[b] Statistique de l'enseignement, 1900, pp. 10–180.
[c] Rapport portant fixation du Budget Général, Ministère de l'Instruction Publique, 1901 (Perreau), pp. 15, 16.
[d] The same (by Maurice-Faure) for 1902.

The official statistics of higher education in France are published decennially, the last bearing date 1889–1899. But the great importance of the law of July 10, 1896, transforming the French faculties into universities, has been made the occasion for publishing a special report by the chief of the department of higher education, M. Liard. Our survey of movements in this department follows substantially this report.

In the introduction M. Liard traces the spirit of the new régime back to the ideas that were promulgated by the French Revolution. The law of 1896, he says—

Marks an epoch in our higher education: it is the end of one period and the beginning of another. For its full comprehension, therefore, it is necessary to consider it in the light of the previous history. The four articles which the law comprises, and which give it a very modest character, are in reality the outcome of a long and laborious process, whose beginnings are found in the action of the Revolutionary assemblies.

In the place of the ancient universities, destroyed by their constitutions, by their abuses, and by their hostility to the philosophy of the eighteenth century, the revolution which sprung from this very philosophy wished to have, for scientific

culture and training, establishments conceived and organized in a manner according with the spirit of science and of the sciences. The Revolution gave rise to a theory of higher education which has been nowhere surpassed and which is nowhere fully realized as yet, unless possibly in some universities in the United States.

From the first day the Revolution conceived higher education as a vast system, at the same time one and multiple, one like the human spirit, the source of all science; multiple as the diverse objects to which this spirit applies itself, open to everything that can be made a subject of study and of research—abstract mathematics, physical realities, moral realities, literary creations, creations of art, applications of science to the technical arts, with as many departments as there are natural divisions of objects, departments distinct but not separated, animated by the same life, the same spirit. This was the encyclopedia as a living reality.

That such was indeed the conception of higher education formed by the French Revolution no one can doubt. The first outlines of it appear in a paper by Mirabeau, and it is more fully expressed in the subsequent report of Talleyrand to the constitutional assembly, and is set forth in striking terms in the report of Condorcet to the legislative assembly. In less noticeable reports under the Convention and the Directory the same idea appears also as a natural expression of the Revolutionary spirit.

While thus recognizing the original of that conception of higher education which the Republic has endeavored to realize, M. Liard admits that it had hitherto failed of practical effect.

The Revolution [he continues] created only special schools; that is to say, establishments limited each to the study of a determinate or of a determined group of sciences: School of mathematics, schools of medicine, school of natural history, school of oriental languages, regarded each as complete in itself. * * * The ideal was of universities in the modern sense of the word; the realty was special schools.

The same policy, as M. Liard explains, was continued by the consulate and by the Emperor. The faculties created by Napoleon were above all things else examining bodies, but in so far as they were teaching establishments at all, they were "special schools of medicine, of law, of letters, of science, having neither the amplitude nor the development which pertains to liberal education in the full sense of the term."

Destitute, or nearly so, of the resources indispensable for scientific research, the special schools or faculties sank to mediocrity. At times, indeed, some one of them "enjoyed the services of eloquent professors, a transient and factitious distinction. Occasionally also an obscure laboratory was the place of a grand discovery. But as a whole these isolated establishments filled no place in the life of the nation or in scientific activity comparable to that of the German universities in Germany."

Through this long period of poverty and inactivity the ideal of the Revolution was not wholly ignored. During the reign of Louis Philippe (1830-1848) it was revived by Guizot on political as well as intellectual grounds. In his memoirs Guizot wrote, as cited by M. Liard, "Paris attracts and morally absorbs all France."

The remedy which Guizot proposed for this evil was the creation of several great universities in the departments.

There should be [he said] in various parts of France great centers of study and of intellectual life where letters and science in all their variety and richness should offer to eager minds solid instruction, equipments for research, honorable careers, intellectual satisfaction, the pleasure of cultivated society. Without doubt eminent teachers and young men of distinction would willingly remain where they should find so many advantages * * * and Paris, without ceasing to be among us the chief center of literary activity and learning, would cease to be a gulf in which are lost many minds capable of a more useful and worthier life.

At the outset the present Republic showed an earnest determination to reform higher education in the spirit of the ideals which had received the approval of the illustrious minister of Louis Philippe. The subject was opened by Jules Simon, minister of public instruction under President Thiers, who in an eloquent address before a united meeting of the learned societies at the Sorbonne urged the creation of universities of which France was destitute. The first general bill dealing with the subject was submitted to the National Assembly by Paul Bert, who proposed "to suppress the useless faculties and transform the others into universities."

Among the savants who advocated this or an equivalent measure are found the names of Claude Bernard, Pasteur, and Hermite. All the brilliant scholars of the day supported the cause. Says M. Liard: "Little by little Renan, Berthelot, Michel Bréal, Ernest Lavisse, Gabriel Monod and others created a literature explaining and justifying the demand for the restoration of higher education by means of universities."

Thanks to this literature, the conception of a university, as opposed to special schools such as had achieved great distinction in Paris, took possession of the leading minds of France, but the obstacles to its practical realization could not at once be overcome.

The law of 1875 which established the liberty of higher education really increased the number of special institutions, as several private faculties, that is, faculties independent of State control, were at once established by the church. However, this same law of 1875 charged the Government to proceed with the preparation of a measure for the reorganization of higher education having especial regard to the unification of the isolated faculties and making adequate provision for the new studies which modern conditions required. From that time successive ministers and the superior council were constantly occupied with the subject. Measure after measure was elaborated, but without results other than the increase of interest in the proposed reforms. In 1883 Minister Jules Ferry addressed a letter of inquiry to all the faculties setting before them the purpose which had taken shape in his own mind, and calling upon the professors for the expression of their own views in the matter.

It is easy to see [observed Minister Ferry], from the various measures that I have taken respecting the faculties during the last five years, that I attach the greatest importance to measures that promise to develop in our institutions of higher education the sense of responsibility and the habit of administering their own affairs. We should achieve great results if it were possible for us to constitute universities comprising, in intimate relation, the most varied departments of knowledge, managing their own affairs, conscious of their duties and of their importance, and animated each with purposes appropriate to their respective localities, but with due regard to the interests of national unity, rivaling the universities of neighboring countries, and exciting, also, between the great cities in which they are located a spirit of emulation which will react to their own advantage. I am aware that time is necessary for such an achievement; that in enterprises of this sort, however worthy the ambition, we should avoid hasty and rash action. I am convinced, however, that the time has come when the question should at least be thoroughly examined. In this serious matter, as in all others, it is through the opinion of the professors themselves, through their experience and devotion, that progress may be hoped for. In this connection I believe it my duty to ask for the expression of their views.

The replies to this circular letter showed that the greater part of the faculties, and especially those that were most fully possessed of the scientific spirit, were in favor of a university constitution. But in the opinion of the Government neither public opinion nor the experience of the faculties themselves justified an immediate radical change of their constitution.

The result of the inquiry, however, strengthened the Government in its purpose of accomplishing the proposed end by successive measures. The first decisive step was taken in 1885 by the passage of two important decrees. Of these decrees

the first, bearing date July 25, empowered the faculties to hold and manage property, and created a general council of each group of faculties as its legal representative. The second decree, dated December 28, extended the authority of this general council to all matters pertaining to the internal affairs of the group, and created also a council of each faculty to administer its separate affairs. A subsequent decree, February 21, 1890, gave the faculties control of their resources and internal affairs. Thus the faculties were gradually freed from slavish dependence upon the State and accustomed to administrative duties. The law of July 10, 1896, restored the old title of university and completed the work of internal organization, which distinguishes an institution from a group of independent bodies. The discussion of these successive measures in the report before us affords an interesting commentary on the persistence of that relation between the Government and higher education which was elaborated by Napoleon. The law of 1896 modified, but did not destroy, that relation, so that even now the French universities are integral parts of an administrative system.

The governing body of each university is a council consisting of the rector, the deans of the faculties, and two delegates from each faculty elected triennially by the professors. This council, subject in certain cases to the approval of the superior council of public instruction, has control over the teaching, discipline, and property of the university. Since, however, the State appoints all professors and pays their salaries, the council has merely advisory power with respect to appointments and the creation, abolition, or modification of professorships. The dean of each faculty, who is its administrative head, represents in the university council both his faculty and the central authority. He is therefore appointed by the minister of public instruction, but for three years only and from candidates agreed upon by the faculties.

The central authority is represented more fully by the rector of the university, who is presiding officer of the university council, and appointed by the President of the Republic.

In 1885, when the council-general of a group of faculties was created, it was decided that the rector was the proper representative of the Government. During the discussion upon the law of 1896 it was suggested by some of the faculties that the president of the council should be chosen from among themselves, and that the rector, representing the State, should simply have a seat in the council, like the curator of a German university. This opinion, however, did not prevail. The rector, who must always be a university man with the degree of Doctor, was accepted as the representative of the State, to which function are added those of executive head and legal representative of the university.

As to the authority exercised by the universities, the law defines the particulars in respect to which they may act independently and those in respect to which their views must be submitted for the final decision of the central authority.

The attributes of the university councils [says M. Liard] may be considered under three heads—civil life, scientific life, and judicial functions.

The civil life is the outcome of moral personality. It is a means of the scientific life; it is, indeed, closely related to the latter. Logically, however, it precedes this.

The civil life of the universities, according to M. Liard, pertains chiefly to the management of their resources. The university council, as the legal representative of a civil personality, an organ of the State and subject to the State, regulates the actual administration of the property of the university. It may deliberate upon but may not decide as to the disposition, acquisition, surrender, and exchanges of these properties; in respect also to loans, the acceptance of gifts and legacies, when these are subject to charges, claims, or special conditions, the council has only deliberative functions. With regard to the offer of subventions, the council

can only give advice, for since these subventions might be intended to support teachings opposed to the public order, it seems necessary to leave their acceptance to the decision of the minister who is responsible to the national legislature. Finally, the council gives its advice respecting the annual budget of the university, of which the amount and the expenditure therefrom are determined by the minister.

Each university has its own income, which is divided into the ordinary income and the extraordinary income. The former comprises the revenues from property and the interest of invested funds, the fees for matriculation, lecture fees, library and laboratory fees, the receipts from university publications, the State appropriations for current expenditures, appropriations by the departments and cities, and all other resources of a permanent character. The extraordinary income includes gifts and legacies, loans, appropriations for building or other special purposes, and all other funds intended to meet temporary demands. Each faculty comprised within a university has its own separate budget. The salaries of all professors are paid from the State appropriations, estimates for the same being annually submitted to the legislature by the minister of public instruction. The university may, however, make arrangements for additional service to be paid for out of its resources.

In giving up to the universities the receipts from fees which were formerly turned over to the State treasury, the legislature decided that they must be applied wholly to objects of immediate advantage to the students, such as the equipment of laboratories, libraries, new buildings, etc. Apart from these specific limitations, the universities have free disposal of their resources.

With respect to the scientific life or scholastic freedom of the universities, M. Liard says:

In each faculty this is the work of the professors; its first condition is scientific liberty; in the limits imposed by his professional title the teacher should be master of his programme. * * * But a professor is not the whole of a faculty, nor a faculty the whole of a university. * * * In the interests both of learning and of students it is necessary that, first in each faculty, and then in all the faculties, of a university the studies should be coordinated. But the university council alone is competent to make this coordination. To this body is delegated the power of deciding absolutely what shall be the course of study, the lectures, and experimental or practical exercises for each school year in all the faculties and schools of the respective universities. In the exercise of this authority the council is limited only by the requirements for the degree examinations established by the State. * * *

In transforming the faculties into universities the law has not suppressed their function of preparing for these examinations.

But, however important this function may be, it does not mark the limit of the scientific life of the universities any more than the degree marks the limits of science.

One of the reasons advanced in favor of the creation of universities is the daily increase of relations, many and vital, between the different sciences, and the appearance of new sciences as yet scarcely defined upon the confines of the older sciences. In order, then, that the development of science itself should be followed it becomes necessary in the organization of higher education to provide for these new relations and interchanges.

In conformity with this view a decree of July 21, 1897, empowered the university councils to control "the organization and the regulation of courses of study, lectures, and experimental work common to several faculties." In the interest of science the councils are also authorized to establish and regulate independent courses of study. * * *

With a view to the same interest also, the councils have been authorized to create university degrees entirely distinct from the State degrees and having a purely scientific value. * * *

In this respect full liberty has been given to the councils. They may create certificates for special studies, and diplomas which, while carrying no legal sanction (that is, as admitting the holder to a professional career in France), are proofs of scientific attainments. The value of these diplomas both in France and

in foreign countries will be increased as science is more and more developed in the universities that award them.

As a result of these departures it has been necessary to give greater recognition to science in the degree examinations and a freer choice of studies. The old system has been modified, the programmes are less rigid, the professors have larger initiative, and the students have some chance to elect their studies.

The character of the university degrees and of the new departments of study created in the universities are set forth more fully in extracts from other sources in subsequent portions of this chapter.

In continuing the report which has been thus far followed M. Liard considers finally the juridical and disciplinary functions of the newly constituted universities. These relate to two particulars, the status of different classes of students and the character of the university discipline. These matters are fully set forth in a ministerial decree of July 21, 1897, which is included in the report by M. Liard. We note here simply that all persons desiring to pursue their studies in the French universities must be matriculated. Formerly this was required only in the case of candidates for a degree. The extended requirement brings all who seek the privileges of a university under its jurisdiction. This measure, with the extensive authority conferred upon the councils, increases the dignity of the universities and their organic unity.

The following details, completing the survey of the transformed universities, are cited from the report of M. Maurice-Faure, of the financial committee of the Chamber of Deputies, on the budget for 1902:

The hopes which prompted the law of July 10, 1896, are being daily realized. Each year gives clearer and clearer evidence of the value of the new régime, and the results accomplished show conclusively that the universities make the best use of their autonomy.

We have found that during the scholastic year 1900–1901, as was the case also in the preceding years, their chief efforts had been expended upon the sciences applicable to agriculture and industry and that the new equipments furnished were designed in particular to meet local or regional demands.

This fact is of special importance, both as indicating the creation of new interests for a part of the youth of France, and the services which the universities are called to render to their immediate neighborhood.

For a long time higher education in France has had no practical aims outside the province of medicine and pharmacy. For a long time the careers for which it prepared were not productive careers in the economic sense of the word. Thanks to the constitution of the universities, to the inspiration coming from the sense of a public mission, and to the general direction given by the minister of public instruction, this condition has changed. The universities now realize that to prepare a great number of men ready to enter into the industrial world with a training appropriate to the economic demands of the country is no unworthy purpose.

Without doubt the universities will continue their researches in pure science, which is the supreme cause of their existence (suprême raison d'être), and whose results are a source of wealth for the nation, but we must approve the many efforts on the part of our universities to turn their energies and resources to the organization of instruction in the sciences corresponding to the needs of their respective localities.

Furthermore, we must approve that comprehensive view of the interests of the country which led the administration to open the universities not only to students who have obtained the bachelor's degree in the modern course the same as to those who have the classical diploma, but also to make them accessible to the ablest pupils of the high schools (enseignement primaire supérieur).

Thus relations have been established between primary and higher education, which, in the interests of social equality, must be constantly strengthened. This is a very important fact to which the attention of the Chamber of Deputies has not been sufficiently directed. It marks a characteristic evolution in accord with all the opinions and aspirations of French democracy.

The universities respond thus to the hopes of Parliament by constantly new efforts, which draw to them more and more the sympathies of the people. Their laboratories have ceased to be mere marble towers in which savants conceal themselves; their doors are freely opened to all forms of human activity. From

the high spheres of pure and speculative science they have descended to the more modest applications of science to industry, to commerce, and to agriculture. Besides the official programmes, which, in respect to the examinations for State degrees, must be strictly limited, the universities have created courses adapted to their particular localities which have stamped upon each an individual and original character.

The physical conditions of the different portions of the country have given rise to various industries, commercial and agricultural, and serve not only the interests of a single province or university but those of the entire country. Thus the waterfalls of Auvergne, which furnish motive power that may be utilized at a distance, have given rise in the University of Clermont to a course in industrial electricity, which will be of great value to electricians in that region.

France, so richly provided with maritime laboratories, was destitute, until recently, of stations equipped for the study of the flora and fauna of fresh water. In the immense plain of Mont-Dore, in the midst of a series of 20 lakes, the University of Clermont has established a limnologic laboratory. The department of Puy-de-Dôme has promised to aid in the work, which is certain to be profitable to Auvergne and to the entire country.

The University of Besançon has entered upon the work of exploiting the electrical energy of the water courses of the Franche-Comté. It has recently created a course in industrial electricity under the direction of a practical engineer, and subventioned by the department of Doubs and the city of Besançon. The same university had already organized a course in industrial chemistry, which is in full operation, and a course in agricultural botany, which, although only a year old, has already enrolled many students. This year, with the cooperation of the departments of the Franche-Comté, the university has made provision for researches of special interest to that locality as follows: A laboratory for agricultural analysis, a laboratory of agricultural bacteriology, and two stations, one for experiments with seeds, the other for the culture of coniferæ and of the most fruitful plants. Recently, at the request of the council-general of Doubs, the university has undertaken an agronomic map of the department.

The latest enterprise of this university deserves special mention. To the chair of mechanics has been annexed a course of higher instruction in chronometry and the regulation of watches, leading to the diploma of horologic engineer. This course completes the work of the observatory long since established at Besançon, and which has been of great service to the watch-making industry of the region.

The University of Bordeaux continues its work in aid of agriculture. For a long time its laboratories have been devoted to researches into the diseases of the vine. In one of these the remedy for mildew was discovered. The proximity of the university to the department of Landes, where the pine abounds and resin is obtained in great quantities, has led to special equipment for the study of this product. In this work the departments of the Gironde and of Landes, and the chambers of commerce of Bordeaux and of Mont-de-Marsan have cooperated. The theoretic instruction respecting the resinous product is completed by manipulations of the material and visits to the manufactories. In the laboratory experiments are made in new industrial applications of resin.

The creation of a colonial institute at Bordeaux must also be mentioned, for although this is not the work directly and exclusively of the university, nevertheless it has been greatly promoted by the study of exotic diseases in the faculty of medicine and by the courses in ethnography and by the chair of colonial geography in the faculty of letters.

Situated in the center of a region justly celebrated for vine growing, the University of Dijon, in view of the work of Pasteur, is not likely to forget that science has a part to perform in saving the vine. This university has long maintained an important experiment station, but for several years an extension of the work has been greatly needed. Thanks to the cooperation of the city of Dijon and the department of the Côte-d'Or, this has been accomplished by the establishment of the agronomic and œnologic institute of Bourgogne, which is intended not alone for free scientific research or for the formation of future professors, but more particularly for the education of future proprietors.

The University of Grenoble, situated in the midst of a region destined by nature to become a powerful center of electrical industry, has for a long time clearly recognized the particular service that science might render to this locality. The first effort of the university in this direction was the establishment of a course in industrial electricity. The success of this effort has led to other measures of the same kind. From its own resources, aided by the city and by manufacturers,

the university has founded an electro-technic institute, which has just been opened to students.

In the laboratories of this institute will be formed electrical engineers and foremen of electrical industries. This foundation is evidently destined to a great future and well deserves a subvention from the State.

The admirable development made by the University of Nancy, through the application of the law of 1896, is well known. This university, always solicitous for the public welfare, has not been satisfied with the finest assemblage of industrial institutes to be found in France. To the institute of chemistry, the institute of brewing, and the electro-technic institute opened last year and already as prosperous as those of older date, it was determined to add an agricultural institute of the highest order. The new establishment was opened at the beginning of the session of 1901–2. It comprises, as courses of instruction common to all students, agricultural botany, agricultural zoology and zootechnics, and agricultural chemistry and geology, and as special courses of instruction, economic branches, forestry, physics, and practical agriculture.

This provision, which is appreciated by the whole federation of farmers of the northeast of France, will direct many young men toward agriculture, who, without this institute, would turn their minds to pursuits much less useful to the country.

It should be added that through a regulation which permits the forestry school of Nancy to admit nonresident students, students of the forestry section of the agricultural institute of the university will pursue a part of their studies in the school of forestry. It is a cause of congratulation that the university has taken advantage of this provision, instead of endeavoring from false pride to duplicate instruction already admirably organized near by.

At Caen, the professors of the courses in industrial and agricultural chemistry have devoted themselves to valuable scientific investigations relative to the manufacture of cheese and of butter. The results are such that the university expects to be the means of founding cooperative societies similar to those of Denmark, and thereby to contribute to the development of one of the principal agricultural resources of Normandy.

In fine, the University of Lyon has created a course in electro-technical studies, and a course in rural economics as a complement to the agronomic course instituted in the faculty of sciences.

The university hopes soon to establish an agronomic institute which "will not be inferior even to that of Paris, and which will contribute powerfully to the diffusion of rational methods, without which our national agriculture could scarcely withstand the competition with new countries."

The University of Lyon has already a French school of tannery, a school of chemistry, and a school for notaries. It will soon have a school of electricity and it seeks to complete its colonial department with the aid of the chamber of commerce.

The latter, collaborating with the Indo-Chinese government, has already established several courses of instruction relative to colonial affairs, among others a course in the Chinese language. This colonial section is "not intended to form functionaries for the colonial service, but persons who desire to engage in industries or commerce, or whose purpose it is to employ, in these distant regions conquered by our own arms or acquired by our influence, activities not employed in the mother country."

Marseille, which has entered resolutely into the scientific movement, and which deserves every encouragement, has established with the cooperation of the chamber of commerce several courses in subjects relating to colonial life. The creation of a complete colonial department is contemplated.

The following list of additional professorships and special courses of study recently established in the several universities completes the view presented by M. Maurice-Faure.

UNIVERSITY OF AIX-MARSEILLE.

Faculty of sciences.—Industrial physics, agricultural botany, physiology, agricultural zoology, industrial physics (lectures on).

Faculty of letters.—History of Provence, language and literature of southern Europe, economic history and geography, history of the language and literature of Provence (complementary course).

UNIVERSITY OF BESANÇON.

Faculty of sciences.—Industrial and agricultural chemistry, agricultural botany (complementary course), industrial electricity, agronomic station.

Faculty of letters.—Auxiliary sciences of history applied to the study of charts and manuscripts relative to the Franche-Comté (complementary course), general bibliography and sources of history of the Franche-Comté (course complementary).

UNIVERSITY OF BORDEAUX.

Faculty of letters.—History of Bordeaux and the southwest of France, language and literature of the southwest of France, colonial geography, Spanish studies (lectures on).

UNIVERSITY OF CAEN.

Faculty of law.—History of the customs of Normandy (complementary course).

Faculty of letters.—History of Norman literature and art (chair).

UNIVERSITY OF CLERMONT.

Faculty of sciences.—Limnologic station at Besse.

Faculty of letters.—History of Auvergne (complementary course), Romanic art at Auvergne.

UNIVERSITY OF DIJON.

Faculty of sciences.—Industrial physics (complementary course), industrial chemistry, agronomic and œnologic institute of Burgundy.

Faculty of letters.—History of Burgundy (complementary course), history of Burgundian art.

UNIVERSITY OF GRENOBLE.

Faculty of sciences.—Industrial electricity (complementary course).

Faculty of letters.—Italian language and literature (complementary course).

UNIVERSITY OF LILLE.

Faculty of letters.—Walloon and Picard languages and literatures (complementary course), language and literature and history of Russia and the Slavs (chair), history of the provinces of northern France (complementary course).

UNIVERSITY OF LYON.

Faculty of letters.—History of Lyon and the surrounding region (lectures), colonial history and geography (lectures).

UNIVERSITY OF NANCY.

Faculty of letters.—History of the east of France (chair).

Faculty of law.—History of law and of juridical institutions of the East (complementary course).

Faculty of sciences.—Chemistry applied to dyeing and printing (lectures), technical electricity (lectures), organic chemistry (complementary course).

UNIVERSITY OF POITIERS.

Faculty of letters.—History of Poitou (chair).

UNIVERSITY OF RENNES.

Faculty of letters.—Celtic language and literature (complementary course).

UNIVERSITY OF TOULOUSE.

Faculty of sciences.—Agricultural botany (chair).

Faculty of letters.—Southern language and literature (chair), Spanish language and literature, history of the laws of southern France.

ADMISSION OF FOREIGN STUDENTS TO FRENCH UNIVERSITIES.

The recent efforts that have facilitated the admission of foreign students to the French universities have been set forth in full in previous Reports.[a] It will suffice to note here that a committee was formed in Paris in 1895 (Comité Franco-Americain), with an advisory branch in Washington, whose purpose it was to familiarize American students with the facilities for advanced study offered by the French universities and with the conditions for admission to the same.

Few foreign students, and especially few American students, were attracted to the French universities because of the difficulty in securing a degree. The German doctorate, on the contrary, could be gained with comparative ease. As pointed out by Professor Furber, of Chicago, to whose efforts the new arrangements are chiefly due:

There was an organic difference in the nature of the German and the French degrees. In Germany the doctorate carried with it no professional prerogatives. Not without further qualifications and severe examinations could the student obtain from the State the license permitting him to practice a profession. In France, on the contrary, the degrees were given, not by the university, but by the State, and clothed the recipient with special immunities and rights. The licencié en droit could enter on his legal duties. The doctor of medicine was already a physician, while the license of the other faculties opened public careers in various directions. To render degrees more accessible to foreigners was, therefore, to subject the native youth to sharper competition in acquiring a livelihood, a competition in which, because of his military duties, the Frenchman was at a disadvantage on his own soil. It was due, in fact, to this consideration that at the very time the friends of a more liberal hospitality were endeavoring to secure the foreign student greater privileges, a counter agitation was developed which aimed at curtailing those that he already had.

The arrangements ultimately proposed by the Comité Franco-Americain harmonized all these interests. It was, in fact, the creation of a new university doctorate, which was sanctioned by a ministerial decree of July 21, 1897, in the following terms:

Besides the degrees established by the State, the universities are empowered to institute titles of a nature purely scientific.

These titles shall confer none of the rights and privileges attached by law and regulations to the (State) degrees and in no case shall be declared a substitute. The studies and examinations which shall determine their distribution shall be subject to regulations formulated by the council of the university and approved by the standing committee of the superior council of public instruction. The diploma shall be delivered, in the name of the university, by the president of the council in forms different from the forms of those delivered by the Government.

The doctorates and diplomas created under this decree and available for foreigners are as follows:

University of Paris: Doctorate of letters; sciences; medicine; pharmacy; Protestant theology. (The university doctorate has not yet been adopted for law.) Also diploma of pharmacy and certificate of French language and literature.

University of Aix-Marseille: Diploma of industrial electricity.

University of Besançon: Doctorate of letters; of sciences; also diploma of agriculture.

University of Bordeaux: Doctorate of sciences; medicine; pharmacy; letters; also diploma of pharmacy.

University of Caen: Doctorate of law; also diploma of and certificate of higher literary studies.

University of Clermont: Diploma of industrial electricity.

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[a] See in particular Report for 1894-95, vol. 2, p. 305; Report for 1896-97, vol. 1, p. 33 et seq.; Report for 1897-98, vol. 1, pp. 749-759; Report for 1898-99, vol. 1, pp. 1091-1095.

University of Dijon: Licentiate in law; doctorate of laws.

University of Grenoble: Doctorate of letters; law; sciences; also diploma for electro-technical subjects and diploma of French language and literature.

University of Lille: Doctorate of medicine; of pharmacy; of economic sciences; of sciences; diploma of technical studies; diploma of French language and literature; licentiate in mechanics; in physics; in chemistry; in geology.

University of Lyon: Doctorate of medicine; pharmacy; sciences; letters; also diploma of pharmacy; of electro-technical studies; of agriculture; of oratory; of pedagogy; French letters.

University of Montpellier: Doctorate of pharmacy; of medicine; of law; also diploma of legal studies.

University of Nancy: Doctorate of letters; of law; of sciences; of pharmacy; of electro-technical studies.

University of Rennes: Doctorate of letters.

The following statement of the expenses to be met by candidates for the doctorate of the University of Paris is furnished by M. Henri Bréal, corresponding secretary of the Franco-American committee:

Faculty of Protestant theology:	Francs.[a]
4 inscriptions quarterly of 30 francs each	120
4 quarterly fees of 2.50 francs	10
Examination fees	110
Total	240

Faculty of sciences:	
Annual matriculation	20
Annual fees for library	10
4 quarterly fees for laboratory of 50 to 200 francs	200 to 800
Examination fees	140

The total depends on the fees for laboratories and on the number of years of study.

Faculty of letters:	Francs.
2 annual matriculations of 20 francs	40
2 annual fees for library of 10 francs	20
Examination fees	140
Total if the doctorate is taken in one year	200

Faculty of medicine:	
16 quarterly subscriptions of 30 francs	480
16 fees for library of 2.50 francs	40
16 fees for practical exercises of 15 francs	240
8 examination fees of 80 francs	640
Total	1,400

Faculty of pharmacy:	
Annual matriculation	20
Annual fees for library	10
4 quarterly fees for laboratories of 150 francs	600
Examination fees	100
Total if the doctorate is taken in one year	730

[a] A franc is ordinarily reckoned at 20 cents, or 5 francs to $1, but the exact rate of exchange is at present 19.3 cents per franc.

Higher technical schools under other ministries than that of public instruction (ministry of agriculture, of commerce, of war, etc.).

Institutions.	No. of students.	Budget (State appropriation).
		Francs.
École Centrale des Arts et Manufactures	700	700,000
Conservatoire National des Arts et Métiers, Paris	.....	500,000
École des Hautes Études Commerciales	a150	.....
Institut National Agronomique, Paris	240	331,500
École Vétérinaire, Alfort	294	440,000
École Nationale d'Agriculture, Grignon	120	.....
École Nationale d'Agriculture, Montpellier	200	.....
École Nationale d'Agriculture, Rennes	118	.....
École Polytechnique, Paris	472	1,300,000
École Supérieure de Guerre	a250	.....
École Spéciale Militaire, St. Cyr (ministry of war)	a520	.....
École Navale, Brest	a100	.....
École Nationale Supérieure des Mines, Paris	161	167,000
École Nationale des Ponts et Chaussées, Paris	118	355,800
École Coloniale	a48	.....

a Admitted in 1900.

The independent or private school of political sciences (École Libre des Sciences Politiques), Paris, registered 900 students in 1901.

The Professional and Financial Status of French Primary Teachers.

Notwithstanding the efforts which the State has lavished upon primary education there is a weak point in the system which seriously impairs its efficiency. The teachers upon whom the ultimate success of the work depends are the most poorly paid servants of the State. The loyalty of these devoted adherents of the new social order and their faith in the good intentions of the Government have supported them under a strain which becomes every year more intolerable. Apart from the actual want suffered by many teachers, the spectacle of their distress deters promising young people from entering upon the teaching career, the normal schools cease to attract, and the service is losing the respect of the classes upon whom the Republic counts for its support. The situation has been brought clearly to view through the efforts of M. F. Buisson, whose eminent service to the cause of popular education has won the regard of every patriotic spirit and the unbounded confidence of the teachers. At his instance, and supported by the prestige of his name, the Manuel Général de l'Instruction Primaire, the oldest and most authoritative of French journals of primary education, has conducted an exhaustive inquiry into the financial condition of the primary teachers of France.a

The purpose of the inquiry, as explained in the introductory announcement, was not to seek and expose particular complaints, but to collect and present to the public, to Parliament, and to the ministry complete and exact information, offered without passion or prejudice, characterizing the normal average condition of the teacher, and when analyzed in detail furnishing some indications as to attainable reforms.

To this end the inquiry forms were drawn up in very precise terms, so that the particulars elicited could be readily tabulated and analyzed. This work was done under the supervision of M. Levasseur with the collaboration of the statistical division of the labor bureau. The results thus obtained furnish the most complete presentation of the living conditions of primary teachers, both actual and as compared with those of persons in other employments, that has ever been made for

a See Manuel Général of April 26, 1902.

any country. It leaves no question as to the inferior condition of the teachers and the necessity of an increase in their salaries.

The presentation created a profound impression and led to an immediate increase of the State appropriations, which furnished some amelioration of the evils. This addition amounted to 5,011,200 francs ($1,002,240), of which 3,811,200 francs ($762,240) were to be used to increase the number of higher salaries, thus giving greater chance for immediate promotion, and 1,200,000 francs ($240,000) to increase the number of pensions, thus making way for promotions by the retirement of persons past service. In the meantime, several bills have been introduced into the Chamber of Deputies, proposing radical changes in the classification of teachers, the conditions for promotion, and the scale of salaries.

For an understanding of this very important movement for the improvement of the teaching service, we consider here: (1) The present provision respecting the classification and salaries of teachers; (2) the actual conditions developed by the inquiry.

For admission to the public teaching service of France one must be a citizen of the country, native or naturalized, and, if a man, at least 18 years of age. Women may enter the service at 17 years.

No one can be a teacher in France (not even in a private school) who has not obtained at least the brevet élémentaire (teacher's diploma of the lower degree).

Teachers of State schools are divided into stagiaires (probationers), and titulaires (having a certified title). A stagiaire becomes a certified teacher (titulaire) by passing an examination in the theory and practice of teaching and securing favorable report for his work as probationer. He may then be appointed as an adjoint (assistant) in a school.

The brevet supérieur (higher State diploma) is only required in the case of masters of the higher primary schools, but, nevertheless, it is held by a large proportion of teachers in the elementary schools. All persons who aspire to become fully certificated teachers must secure the "certificat d'aptitude pédagogique" (the highest teachers' diploma). This distinction, as already stated, is held by about 97 per cent of the teaching force.

It should be recalled that probationers (stagiaires) are appointed by the academy inspector, who alone has the right to make up the list of candidates from whom the department prefect may appoint full teachers.

Not only is the entrance into the teaching service thus carefully guarded, but the teacher's salary and advancement in the service are also under strict regulation. The salary of the stagiaire is 900 francs ($180) per annum. The certified teachers in the elementary primary schools are divided into five classes, with salaries fixed as follows:

Class.	Male teachers.		Female teachers.	
	Francs.	United States equivalent.	Francs.	United States equivalent.
Fifth class	1,000	$200	1,000	$200
Fourth class	1,200	$240	1,200	$240
Third class	1,500	$300	1,400	$280
Second class	1,800	$360	1,500	$300
First class	2,000	$400	1,600	$320

Each class contains a certain percentage of the whole body of teachers; hence the significance of the expression "la pour centage," constantly occurring in discussions of the service. By the law of July 15, 1889, the percentages were fixed as follows:

"Stagiaires, 15 per cent; fifth class, 25 per cent; fourth class, 25 per cent; second class, 10 per cent; first class, 5 per cent."

Promotion from one class to another depends upon (1) efficiency as attested by the reports of the primary and academy inspectors; (2) length of service.

Teachers of the fifth and fourth classes can only be promoted after five years' service. For promotion to the second and first classes, the teacher must hold the "brevet supérieur" and have served at least three years in the preceding class. It is further provided that teachers who have served ten years are eligible for the fifth class; if the service is fifteen years, the teacher is eligible for the fourth class; if twenty years, for the third class, and twenty-five years for the second class. There is, however, a restriction which reduces even the chance for promotion which the law seems to give, since no promotion can be made to a class so long as it has its full contingent. Under this system the upper classes became so congested as to block promotions, and thousands of teachers seemed doomed to wear away their lives on the lowest salaries.

As a partial relief to this unfortunate condition, a change was made in 1900 in the percentage allowed to each class of teachers. The stagiaires were reduced from 15 to 10 per cent of the total, and the fifth class from 25 to 20 per cent, while the third class was raised to 25 per cent and the second to 15 per cent. The addition already noted of five million francs to the annual appropriation was necessary, however, to give practical effect to the change in the percentages. The increase provided for the retirement of a large number of aged or infirm teachers and the augmentation of salaries as required by the readjustment of the positions.

In the public discussion of the salaries emphasis has been placed upon the additional emoluments which teachers receive from the individual communes.

Every commune must provide a lodging for the teacher or its money equivalent, and a commune may increase the salary. Outside of the large cities, however, the local increase of salaries is seldom granted without the requirement of other teaching.[a]

The rural teacher is expected to act as secretary to the mayor of his commune, whose office is generally on the school premises. For this service he may, and often does, receive compensation.

Once appointed titulaire the primary-school teacher has practically a life tenure of his position, as he can only be removed for immorality or incompetence. As members of the civil service teachers are carried on the pension list and may demand their retirement at 55 years of age if they have twenty-five years' service to their credit. The years passed in the normal school after the student reaches 20 years of age count toward the pension. The rate of pension is based on the average of the teacher's salary for the last six years. For twenty-five years' service the pension is reckoned at 50 per cent of the average, with one-fiftieth for every year's extra service. The pension can not be lower than 600 francs ($120) per annum for men and 500 francs ($100) for women. Hitherto, as we have seen, the annual appropriations for pensions have not sufficed to prevent the block in promotions.

To complete the view of the nominal advantages offered by the teaching career, it should be added that the required term of military service (three years) is reduced to one year for teachers. Until recently teachers were exempt from military service, and the sons of rich peasants, it is said, often entered the normal school to escape military service; but zealous teachers complained of a privilege which seemed to put a stamp of effeminacy upon their profession and which also drew to it men having no real interest in the work. The one year's service was

[a] The only obligatory expenses in respect to public schools now left to the communes besides the residence for the teacher are: Provision of site and school building; school furniture and equipments; heating and lighting school premises; wages of the maid employed to attend to the children in the infant school (if there be one), and of the caretaker of the primary school (the latter seldom provided in small communes).

accorded in response to this spirit of patriotic and professional pride, but it has not proved very satisfactory, as the great body of those affected would as lief serve the full three years as to be marked off from their comrades by a term of one year.

An additional privilege accorded to primary teachers is that of free tuition for their sons in the national lycées and communal colleges (law of 1900) and they have the right to travel by rail at half the regular fare.

In this summary of the conditions affecting teachers, no reference has been made to the directors of primary schools or to the teachers of the higher primary schools. The former receive an additional sum of $40 per annum if in charge of a school of three or four classes and of $80 for a school of more than four classes. Teachers of the higher primary schools, like those of the elementary grades, are divided into five classes—promotion from one class to the next higher being regulated as in the case of the elementary teachers. The high-school teachers receive better salaries, the scale rising from 1,800 francs ($360) to 2,800 francs ($560).

The position of these higher-grade teachers is distinctly better than that of the lower grade, and the question of raising their salaries is agitated as a measure of public advantage rather than of personal necessity.

It remains now to present, briefly, the actual condition of the French primary teacher as disclosed by the recent investigation.

Replies to the inquiry issued by the Manuel Général were received from 3,472 teachers (men only), about 7 per cent of the total number of men [a] employed in the public schools. They were located in 2,924 different communes, or 8 per cent of the total number.

The chief particulars elicited are summarized in the following tables. The first and second tables relate to the professional and civil status of the teachers responding:

Professional situation of the teachers responding.

Class of teachers.	Total.	Number of years of service.							
		0 to 4.	5 to 9.	10 to 14.	15 to 19.	20 to 24.	25 to 30	Over 30.	Unknown.
First class	67					3	13	50	1
Second class	283					8	80	170	5
Third class	847				52	468	311	4	12
Fourth class	1,071		1	93	792	171	2		12
Fifth class	809	16	279	488	26		1		9
Stagiaires (probationers)	405	238	127	19					11
Unknown	10								10
Total	3,472	254	407	600	870	650	407	224	60

Civil state of teachers responding.

Class of teachers.	Total.	Number married or widowed and having a number of children under 13 years of age, equal to—								Unmarried.	Unknown.
		0.	1.	2.	3.	4.	5.	6 and over.	Unknown.		
First class	67	51	10	4	1		1				
Second class	283	151	62	29	9	5	2	1		4	
Third class	847	276	239	161	76	47	19	12		16	2
Fourth class	1,071	133	324	328	148	53	31	7	2	44	
Fifth class	809	167	291	130	33	9	3		7	169	
Stagiaires	405	39	33	13	2	1			1	316	
Unknown	10										10
Total	3,472	817	959	665	269	115	56	20	10	549	12

[a] As only 107 women teachers responded to the inquiry they were not considered in the final summary.

From the first of the above tables it appears that while the greater part of the stagiaires represented in the replies count less than five years' service, a considerable number—nearly 39 per cent—exceed the five years, or the normal period for promotion; the majority of teachers in the fifth class count between ten and fourteen years of service; the majority in the fourth class count between fifteen and nineteen years' service, and the majority in the third class between twenty and thirty years. A very small proportion of those in the second class and first class have had less than twenty-five years' service. Hence it would seem that a French teacher must work a quarter of a century before he reaches the modest annual salary of $360.

With respect to the second of the above tables, the reporter notes that the proportion of unmarried teachers—16 per cent of the number considered—is below the proportion of the unmarried in the population as a whole, viz, 22 per cent.

The results of this inquiry of greatest general interest relate to the incomes of teachers.

The inquiry with respect to incomes specified the following sources: (1) Professional, comprising all the receipts pertaining to the position held by the individual teacher; (2) supplementary, comprising receipts for extra services, i. e., teaching in evening classes, clerical work, etc.; (3) salary of wife or other sources of family income.

The following table presents a summarized view of incomes from all the sources named above under two classifications: First, classification by communes; second, classification by grade of teachers.

Summary of teachers' incomes.

Classes of communes.	Total number of teachers.	Number of teachers receiving— More than 3,000 francs ($600).	2,001 to 3,000 francs ($400 to $500).	1,501 to 2,000 francs ($300 to $400).	1,201 to 1,500 francs ($240 to $300).	1,200 francs ($240) and less.
Communes of 0 to 500 inhabitants	2,210	153	671	831	346	209
Communes of 501 to 1,000 inhabitants	511	51	184	101	53	122
Communes of 1,001 to 2,000 inhabitants	305	41	88	51	55	70
Communes of 2,001 to 3,000 inhabitants	133	11	34	23	28	37
Communes of 3,001 to 4,000 inhabitants	73	13	18	15	19	8
Communes of 4,001 to 20,000 inhabitants	142	21	38	36	38	9
Communes of 20,001 to 50,000 inhabitants	38	8	16	10	3	1
Communes of more than 50,000 inhabitants	50	14	21	12	3	.....
Total	3,462	312	1,070	1,079	545	456

Classes of teachers.	Total.	Number of teachers receiving— More than 3,000 francs ($600).	2,001 to 3,000 francs ($400 to $600).	1,501 to 2,000 francs ($300 to $400).	1,201 to 1,500 francs ($240 to $300).	1,200 francs ($240) and less.
First class	67	33	34	.....	.....	.....
Second class	263	70	166	27	.....	.....
Third class	847	137	374	332	4	.....
Fourth class	1,071	50	297	481	233	4
Fifth class	809	16	188	215	238	152
Stagiaires	405	.....	11	24	70	300
Total	3,462	312	1,070	1,079	545	456

Communes not reporting, 10.

Attention is called to the fact that the small communes were more largely represented in the replies than the larger ones. The proportion of each class of communes responding to the total number of the class was as follows:

Class of communes.	Per cent responding.
0 to 500 inhabitants	50
501 to 1,000 inhabitants	27.5
1,001 to 2,000 inhabitants	15
2,001 to 3,000 inhabitants	3.7
3,001 to 4,000 inhabitants	1.5
4,001 to 20,000 inhabitants	2
Above 20,000 inhabitants	.3

The two following tables relate to incomes for strictly professional service. The first of these shows the proportion of teachers in each class receiving stated incomes; the second table shows the amount of income received by specified percentage of teachers in each class.

Incomes from professional sources only, including salary, allowance for house, pay for extra teaching.

Classes of teachers.	Number of replies from each class.	1,200 francs ($240) or less.	1,201 to 1,500 francs ($240 to $300).	1,501 to 1,800 francs ($300 to $360).	1,801 to 2,000 francs ($360 to $400).	2,001 to 2,500 francs ($400 to $500).	2,501 francs ($500) and over.
First class	67					50	50
Second class	263			8	51	35	11
Third class	847		3	73	14	8	2
Fourth class	1,071	0.2	80	15	2.8	2	0.3
Fifth class	809	43	44	11	2	0.4	
Stagiaires	405	90	8.4	1.2			
Total	3,462	21	37	25	9	6	2.4

Different incomes from professional services by classes.

Class of incomes.	Number of replies.	Percentage of each class of incomes received by—					
		First-class teachers.	Second-class teachers.	Third-class teachers.	Fourth-class teachers.	Fifth-class teachers.	Stagiaires.
1,200 francs ($240) and less	714				0.3	48	51
1,201 to 1,500 francs ($240 to $300)	1,289			2	67	28	2.7
1,501 to 1,800 francs ($300 to $360)	878		0.9	70	18	10	18
1,801 to 2,000 francs ($360 to $400)	301		45	40	10	5	
2,001 to 2,500 francs ($400 to $500)	217	16	42	31	9.6	1.4	
2,501 francs ($500) and over	83	40	35	22	3.6		
Total	3,462						

From the first of the two tables immediately preceding it appears that the income from professional work (regular and accessory) does not exceed 1,200 francs ($240) for 21 per cent of the teachers responding; 1,500 francs ($300) for 58 per cent; 1,800 francs ($360) for 83 per cent; 2,000 francs ($400) for 92 per cent; only 6 per cent receive an income between 2,000 francs ($400) and 2,500 francs ($500), and only 2 per cent an income above 2,500 francs ($500). Further, it is seen that after many years of service the French teacher must still remain at a very low salary. For instance, of the teachers of the fifth class, who have had at the least four or five years of service and more often ten or fifteen years, it is found that 87 per cent have incomes not exceeding 1,500 francs ($300); of teachers in the third class who count as a rule from twenty to thirty years' service, 73 per

cent have not obtained more than 1,800 francs ($360), while only 10 per cent of this class exceed 2,000 francs ($400).

The last table shows that great inequalities of income are found among teachers in the same class, and also that the same rate of income may be obtained by teachers in different classes. These inequalities arise from the varying opportunities for extra teaching outside of the regular school duties.

But a statement of incomes does not of itself enable us to appreciate the actual conditions of the teachers. A more important consideration is that of the relation of the income to the supply of the necessary demands of life. This can only be understood by an examination of the expenditures, which are set forth in a series of tables of which only the summary is here reproduced.

Annual expenditures.

Classification of incomes.	Number of teachers reporting.	House.	Food.	Heat and light.	Clothing.	General household.	Insurance and saving.	Other expenditures.	Total.
		Francs.	*Francs.*	*Francs.*	*Francs.*	*Francs.*	*Francs.*	*Francs.*	*Francs.*
3,000 francs ($600) and more	357	225	1,530	150	510	523	447	250	3,625
2,000 to 3,000 francs ($400 to $600)	1,144	145	1,103	124	373	250	228	182	2,405
1,500 to 2,000 francs ($300 to $400)	1,025	114	888	105	287	112	121	130	1,757
1,200 to 1,500 francs ($250 to $300)	488	85	732	77	235	44	78	125	1,376
1,200 francs ($250) and less	392	57	596	43	181	11	61	117	1,066
Total	3,416	125	971	105	329	180	178	158	2,036

The condition of the teachers is also shown to be greatly inferior to that of other employees in the lower grades of the civil service, as will be seen by the following comparative statistics submitted to the Chamber of Deputies in connection with a summarized report of the investigation here reviewed.

Salaries of teachers compared with those of other civil employees.

TEACHERS.

[Age at entrance into the service, 20 years.]

Class.	Years spent in each stage.	Salaries (per year).			
		Men.		Women.	
		Francs.	United States equivalent.	Francs.	United States equivalent.
Stagiaires	Indeterminate	900	$180	900	$180
Fifth class	do	1,000	200	1,000	200
Fourth class	do	1,200	240	1,200	240
Third class	do	1,500	300	1,400	280
Second class	do	1,800	360	1,500	300
First class	do	2,000	400	1,600	320

Salaries of teachers compared with those of other civil employees—Continued.

EMPLOYEES IN POSTAL TELEGRAPH SERVICE.

[Age at entrance, 18 years.]

Classes.	Maximum duration in each stage.	Salaries (per year).	
		Francs.	United States equivalent.
Stagiaires	6 months	a 50	$10
Seventh class	15 months	1,200	240
Sixth class	3 years, 7 months.	1,500	300
Fifth class	do	1,800	360
Fourth class	do	2,100	420
Third class	do	2,400	480
Second class	do	2,700	540
First class	do	3,600	720

a Per month.

EMPLOYEES IN THE TAX OFFICE.

[Age at entrance, 18 years.]

Supernumeraries	20 to 24 months	a 50	$10
Clerks:			
Fourth	2½ years	1,500	300
Third	4½ years	1,700	340
Second	10 years	2,000	400
First	do	2,400	480
Receivers:			
Third		2,700	540
Second		3,000	600
First		3,300	660

a Per month.

It is interesting to compare the salaries of French teachers tabulated above with the following average salaries of teachers in the United States and in England.

Average annual salaries of teachers in the United States for 1900.

	Men.	Women.
United States	$342.36	$282.02
North Atlantic Division	513.97	370.77
South Atlantic Division a	165.87	158.98
South Central Division a	213.32	165.45
North Central Division	389.62	306.52
Western Division	448.99	373.89

a The figures for the two Southern divisions do not adequately represent the professional incomes of teachers in the Southern States, as in some of these States it is a common practice for the patrons of a school to contribute to increase the salary of the teacher received from public funds, or to engage him to conduct his school as a private school after the public term has expired.

Average annual salaries of certificated teachers in England for 1899.

Grade.	Men.	Women.
Principals	$720	$470
Assistants	510	380

The facts presented in the above tables show conclusively the inadequacy of the teachers' salaries and their inferiority to those of other employees of the Government. The letters accompanying the tabulated details impart to them a personal and, at times, pathetic interest. Their general character is shown by the following citations from two letters included in the number selected out of the collection by M. Buisson to be submitted before the Chamber of Deputies. A teacher in the Department of Eure (northern France) concludes his statement as follows:

For myself I have no longer cause for complaint. There are now two of us earning and, thanks to the good health of both, we are hopeful. But can I forget the condition in which I lived for many years? * * * I had been forced to contract a debt of 500 francs (of which 200 were for doctor and medicines), although I worked from sixteen to eighteen hours daily. I could not afford to join one of the mutual aid associations. If I had sought a better position, this would have necessitated moving—an expense which was beyond me.

I conclude (1) that it is impossible for a young man from 20 to 25 years of age to make both ends meet with 900 francs ($180) a year; (2) It is impossible for a married man from 25 to 30 years of age to live on 1,000 ($200) a year; (3) It is very difficult for a man 35 years of age, the father of a family, to support his wife and children on 1,200 francs ($240) a year.

A second teacher contrasts the condition of persons in his calling with that of other civil employees, as follows:

In 1899 one of my pupils in the continuation class presented himself, in July, at the examination for a teacher's diploma (brevet); he failed in the second part of the examination; fortunately, he gained admission to a normal school, and in October tried again for the diploma, but failed in orthography. He was at the time 18 years of age and of average intelligence. In November he passed the examination for admission to the postal service and in the following May received an appointment in Paris. He passed two months in learning telegraphy at a salary of 50 francs a month, after which he was promoted to the position of a traveling substitute clerk. He wrote to his parents that he was receiving 120 francs a month and should need no further assistance. The first of October following his position was still further improved, as he was made full traveling clerk. Taking advantage of Easter holiday he paid a visit to his family and friends. In talking with me he said (I use almost his own words), "I am glad indeed that I failed to get the brevet. I am traveling clerk; the journeys are wearisome, but we have plenty of time to rest. I receive 180 francs ($36) a month with transportation. I can provide for myself without help from my relatives."

He met his old comrades and talked freely with them, and as a result two pupils whom I was preparing for the normal school have changed their minds. They are going into the postal service.

Second example:

In the village is a family of 4 children, 3 sons and a daughter, whose father is a miner. Thanks to the continuation class, the two elder sons became teachers, after an excellent training in the normal school and the possession of the higher diploma (brevet supérieur). The youngest son presented himself at the same time for admission to the postal service and to the normal school. He was accepted for both and chose the postal service. He is inferior to his brothers, naturally, as he has not had the normal school course; however, he has a better career. It is easy to see why. He passed his term of military service in Africa, and was able to provide for himself without calling for aid from his people. He secured an appointment in the postal service of Algiers and reached a salary relatively large. His father said to me one day, "The youngest is the one who has succeeded best; he gets the most money; he lives most at his ease." "Yes," I replied, "but he cost you a great deal while he was awaiting his appointment (surnumérariat)." "You are mistaken," rejoined the father, "he cost me less during that time than the others while they were in the normal school." These examples are conclusive and show why the normal schools are no longer filled.

The writer continues:

The condition of the directors in some exceptional schools is very satisfactory, but the great body of the teachers can not possibly live on the salary allowed. If a man marries a woman who is also engaged in the work, the double salary

may suffice for their necessities, otherwise the prospect is hopeless indeed. I speak from experience. For six years—from my twenty-third to my twenty-ninth year—I was principal of a school of two classes in the chief town of the canton. Near me lived a road surveyor of my own age, who had failed in the examination for the brevet, but who earned 2,100 francs a year; a receiver of taxes, whose inferiority was well known, but who reached a salary of 3,000 francs, and other functionaries who esteemed me because of my superior knowledge, but who pitied me for my position.

Among my assistants there was one, a married man, having one child 3 years old, who had obtained both the superior diploma and the certificate of pedagogic capacity; at 31 years of age he was receiving only 1,000 francs ($200); a second, also a married man with an infant child, possessed the superior diploma and qualified for the certificate of capacity which constitutes one a full teacher, and receives the same sum; a third assistant, also in receipt of 1,000 francs, has a wife who is a teacher, and their combined salaries enable them to live more comfortably.

The above citations bear out the impressions expressed by M. Buisson in his review of the whole correspondence:

In these letters [he says] there is much to encourage and console those who have had faith in secular education and lay teachers. The tone is dignified even when complaint is uttered. They express confidence in the force of public opinion and the firm conviction that the Republic will do what is necessary and do it quickly. This manner of setting forth the truth and claiming what is morally due is vastly superior at once to that resignation which was formerly regarded as the chief virtue of the poor and to that violent language in which the discontented so often indulge. To-day our teachers indulge neither resignation nor revolt. They are as far from gloomy, paralyzing hopelessness as from the angry passion which gives one over to rancor and hate. They know their rights, and they maintain them. They explain their situation freely, but they do not forget what the school work of the third Republic signifies. They simply show that it is necessary to complete it, to guarantee it against every disaster, and that after millions have been expended on the schools it must be possible to expend a few hundred thousand in order that the teacher should be materially what everyone knows he ought to be.

The letters frequently include propositions of law for the remedy of the evils described. None of these have been considered here, as they are of interest chiefly to the officials whose business it is to draft a bill. The inquiry so ably conducted has created a profound impression. Even in the public press the situation disclosed is discussed as a "national peril." As already indicated, it has resulted in immediate efforts at temporary relief, pending legislation which will radically improve the financial status of teachers.

CHAPTER XVI.

EDUCATION OF THE WILL.

CLOSING LECTURE OF THE COURSE IN PEDAGOGY DELIVERED AT THE SORBONNE JUNE 22, 1899, BY F. BUISSON, PROFESSOR AT THE SORBONNE.

LADIES AND GENTLEMEN: It is not customary to write a closing lecture, and I only decided to prepare the present one in response to a request made by some of you who wished, as they told me, to preserve a kind of memento of the principal ideas which we have been considering in the present course, and of the pedagogical instruction which can be derived from them. I will endeavor to afford you some satisfaction in this respect without attempting to disguise from myself that such a summary as I am compelled to give will be necessarily abrupt and dry. All that gives animation to instruction will have disappeared, and only the skeleton will remain.

The course for this school year (1898–99) was devoted to the education of the will.

What is the will? This was our first question, and I do not venture to flatter myself that we found a final answer to it, even from the special point of view of education. At any rate we endeavored to get rid of two widely diffused errors.

I.

In the first place, we labored to combat an abuse of the old psychological terminology, which makes the will a "faculty" in the narrow and rigid sense to which the word is confined by the school of Cousin. "The fundamental and gross error," as M. Hannequin[a] boldly says, "which has produced a conception of the doctrine of the mental faculties most radically contrary to the spirit of science, and which is the most serious obstacle to the development of psychology," is that instead of applying to that doctrine the method of induction which connects one fact to another, all research is dispensed with by referring all facts directly to an assumed cause which is itself found to be only a word. How do we explain a phenomenon in any of the sciences of observation? By demonstrating experimentally that it always follows certain other phenomena and varies with them. "The cause of the tone of a tuning fork is the motion of its branches and the vibratory motion which it communicates to the air. The cause of the radiance of hot bodies, i. e., of the phenomena of light, is the undulations of the ether. The cause of the explosion of powder is its chemical energy, i. e., the molecular movements of its chemical constituents, which become movements of translation under the influence of the spark. The cause of the circulation of the blood is found in the contractions of the heart and arteries, these contractions being themselves conditioned by the decompositions and undulations of the nervous matter. Everywhere the cause of a phenomenon is found in the phenomena which precede it, never in occult forces such as the sonorific force, the caloric, explosive, or circulatory force, or the light force." On the other hand, in psychology, as we learned it at college, there was a yielding to the ancient temptation to explain everything by some word which in reality explains nothing. The same answer which was

[a] Introduction à l'Étude de la Psychologie, pages 108 et 112.

given in response to the question, Why does opium produce sleep? Because it possesses soporific qualities, was repeated everlastingly; and when we were asked, Why do we think? the answer was, Because we have a thinking faculty. We will, because we are endowed with the faculty of willing: we feel, because we have the faculty of feeling, and so on.

To realize an abstraction, to take a general term which embraces a certain number of facts as the explanation of those facts, has always been and is still the natural and almost irresistible tendency of the human mind. Let us try to resist this tendency. Nor is this all. Not only is the name of a faculty only a label for designating a whole group of facts under a single term, but it is a label which presents those facts as if they were isolated and distinct, while nature never isolates or distinguishes them fully. In reality, in life, always and everywhere, the psychical act is complex. There is no sensation as such, pure and simple, without some admixture of intelligence and will: neither is there a voluntary act or an act of the intelligence which is wholly independent of pleasure or pain.

To represent the will as a special power of the mind, opposed to sensation on the one hand and to intelligence on the other, is at once to condense and simplify wrongfully facts which the laws of logic may compel us to look at separately, but which are only the diverse aspects of one and the same act. Indeed, it is only for the sake of analysis that we distinguish these inseparable phenomena in order to discern them more clearly, and divide them in order to particularize each. Nothing would be more legitimate than for us to try to follow each of the vital phenomena of the mind—the will, for example—through its own development, disregarding all the rest, as if it were like a single straight line, autonomous and independent, and as if it had never had anything in common with the phenomena of representation or the affections, provided that in doing so we do not become our own dupes, and, after having artificially dissociated our phenomena, forget to recompose them if we wish to recover their true nature; and, provided also that, after having placed as it were one of the innumerable and imperceptible filaments of our complex psychical life under the microscope, we do not forget that all of them together in the living being form the most inextricable network, and that the miracle of life consists in their indissoluble solidarity, their close and mutual interdependence. In short, after using language, that marvelous instrument of purely logical analysis, let us remember to enter again into the living reality and restore to it its character as the richest and most mysterious of syntheses. Let us free ourselves from the illusion due to words; from the superstition that words must represent entities. Let us observe facts instead of cataloguing terms. Let us endeavor to discover, by introspection and by all the other means of investigation, direct and indirect, now at our disposal, what an act of the will really consists of, what it presupposes, what elements of sensation and representation it contains, what part of it is conscious and what unconscious, spontaneous or deliberate, primitive or acquired, how much it owes to instinct, to heredity, to personal initiative, to habit, and to impulse. In a word, let us face the problem in its complexity, and not allow our curiosity to be extinguished by a too easy answer and a too simple explanation.

II.

The second great error from which we tried to free ourselves is a consequence of the first. This second mistake is that we only observe the will in its perfect state, at the summit of the hierarchy of beings, in the adult man, and in man himself only in a small number of acts which combine in themselves all the conditions of the perfection of free will.

Doubtless it is in this manifestation that we are to seek the finished type of will,

which reaches its highest degree in what Kant would define as moral determination. But this pure act of pure spirit does not appear in the history of living beings as a sudden miracle. "For the evolutionist," says M. Ribot, "the will can only be the supreme form of activity, the last step in an upward movement which presupposes all the preceding ones." It is the last term of the long vital procession which begins with animal life and continues step by step until man is reached, and which, even then, goes on increasing from infancy to adult age, from the savage to civilized man, from the common man to the man of genius.

Below, far below the ideal act of a will absolutely free and disinterested there is revealed a whole series of acts already voluntary, conscious determinations, movements due to an intention which the agent alone knows, and choice which may be called free in the sense at least that the chooser judges it to be free. The natural history of the will precedes its psychology. The time has passed when it was thought to be a profanation of the word to admit that there are proofs of the existence of the will in animals as there are of sensation and reasoning. While recognizing, with Maudsley, that "the will certainly appears to be the final bloom in which nature causes the most marvelous of her wonders to appear," we must also acknowledge with M. Ribot that the will "has a very humble origin," and that the first form under which it appears in the world can not be distinguished from that property of living matter which physiologists call irritability.

In common then, with Bain, Wundt, William James, and Fouillée we attempted to disentangle what another philosopher has called "the history of the development of the will," and to follow it from the first traces of appetency, from that kind of vital reflex action which, gradually becoming associated with consciousness, memory, and rudimentary experience, becomes desire, and then is fixed in a permanent inclination, to the point at which, out of the mass of natural inclinations, one general direction of the whole is distinguishable, a force which, at first feeble and groping, ends by becoming the free and rational will. This series of phases in the evolution of the will is reproduced in the infant. The newborn child is alive, but his life only manifests itself by reflex movements which, day by day and week by week, become transformed into instinctive movements and then into those which are manifestations of desires which the child feels. The impulse to act is at first entirely organic, but comes to be accompanied by sensations and reactions which become gradually differentiated and distinct until the moment when clear consciousness is attained and the specific phenomenon of humanity—language—appears.

Thus we have become accustomed to regard the will as the expansion in humanity of what Schopenhauer called "the will-to-live," or, in other words, as the most complex and the loftiest form of life, which is only made possible by a powerful synthesis of instinct and intelligence, of activity and passivity, of spontaneity and reflection, of a multiplicity of impressions and a unity of law granted by reason.

If these observations do not enable us to give a definition of the will, they at least lead us to call it, as M. Ribot does, "a resultant." They also help us to foresee how varied, complex, and progressive the education of the will must be in its turn, and how much more, therefore, the will merits the title of "a resultant."

III.

M. Vacherot used to say, "History shows us in large characters what psychology compels us to decipher in traces so fine and delicate that we can hardly discern them." So we turned to history to find out what the will is. And history—the history of philosophy and of religion, as well as of human institutions and societies—answered us by a kind of paradox. To take a most striking example, we found the very same doctrine which Saint Augustine made prevalent in the first

years of Christianity—the somber doctrine of predestination and enslaved will—reappearing in the dawn of modern times. "No," said Luther, "I am not free. Free will is an empty word. And if it were otherwise, and even if God Himself were to offer me free will as a gift I should refuse it." "No," said Calvin, translating the same sentiment into formulas pitilessly precise, "the will of man is nothing, can do nothing, is worth nothing; in the hands of God man is like clay in the hands of the potter. The creature can demand no reasons from his Creator; he has not even the right to beg for justice, because God's justice is not our justice, and we can only adore and tremble." And this utter annihilation of the human will by the divine, this final and superhuman effort to which, until then, only a few thinkers and saints had attained in moments of ecstasy, Calvin undertook to convert into a current and popular educational doctrine. "Upon this rock," says Michelet, "he built the church and the city."

Now, that same Calvinistic education, so sternly trampling liberty under foot, became the very education which spread over the face of the earth, engendering free men and free peoples. Contemning human will, it produced heroic wills, creating legions of martyrs, who were sent to the stake and the scaffold. It gave the people of the United Provinces strength to undergo the most frightful orgy of massacres recorded in history. Through it the French Huguenots endured forty years of persecution, filling dungeons and meeting torture and death rather than consent to bow to an image of the Virgin or the Host. It produced heroes like Marnix de Saint Aldegonde and Coligny, John Knox and William of Orange; it raised up innumerable Protestant preachers, who resumed their work immediately after the slaughter of Saint Bartholomew, and inspired the men who voluntarily became galley slaves after the revocation of the edict of Nantes, who might have escaped by a word, but would not. Nearer us, in the bosom of Catholicism, we find another example of the same historical paradox. We studied it while reviewing the life at Port Royal. Never were the sense of humility, the conviction of the nothingness of man, and the effacement of human liberty before Divine Sovereignty more profound in Catholic souls than at Port Royal. And nevertheless it is there that we find in Jansénius, Saint Cyran, and Arnaud, and in the poor, humble, trembling nuns of Port Royal that very force—the will—which they seem to have tried to destroy, again prevailing with incomparable strength. There we find French subjects whose submission to the civil power was most exemplary, and faithful Catholics to whom even the mere thought of disobedience to the Church was intolerable, nevertheless resisting both King and Pope. Their resistance, to be sure, was respectful and pious, but it forbade any triumph over their conscience and was unshaken by either the edicts of the King or the bulls of the Pope. Notwithstanding that their faith condemned them to the most illogical of contradictions their resistance endured for a century.

We meditated upon these lessons of history and came to understand their apparent contradiction. It is not denying the existence of the human will to make it subordinate to the divine will, that is to say, to a law which serves as its foundation, rule, and cause. Will is not caprice, and man must not entertain the illusion that he is either its author or its end. He does not suffice for himself, but his existence, his intelligence, his free activity all require a point of support firmer than himself. This explains why he will do for duty's sake what he would not do for self-interest alone. Duty is the great mainspring of the will, because it is superior to and communicates something eternal and absolute to the will which the will alone could never give itself. The human will, moved and regulated by respect for the divine will, annihilates itself in appearance, but in reality attains its highest degree of force, grandeur, and fixedness. It blends itself, so to speak, with the law, the majesty of which it borrows. To obey God, which is nothing else than to obey one's conscience, is the highest act of liberty.

IV.

Can such historical studies as these, when compared with psychological observations, aid us in laying the foundations of a pedagogy of the will? It would appear at first that the doctrines of the education of the will might be referred to one of two great schools, one of which finds its most perfect expression in the philosophy of Kant, the prototype of which in the past was stoicism, and which may be defined as the education of the will by the will itself. It is the affirmation of duty and implies, as a consequence, a constant appeal to effort. "I ought, therefore I can, therefore I will." Morality is liberty governing itself and obeying itself alone. How can we learn to will? By willing. From this comes the permanent tension of all the springs of our spiritual machinery. The categorical imperative is the supreme law of action.

No one can deny the sublimity of this austere conception, but who will maintain that it alone can satisfy the whole of human nature? Therefore this haughty and uncompromising method of education has not prevailed. The average man and average society have had a much more eclectic and empirical conception of the education of the will. The idea of effort is not excluded from this conception, but it enters into it only in the proportion of the possible, and this proportion is quite restricted. According to this conception, pure will should be assisted by auxiliaries which are often more efficacious than the will itself, viz, interest, pleasure, habit, imitation, the hope of reward, and the fear of punishment—all the innumerable forms, in short, under which the gentle pressure of authority is insinuated into our minds. Instead of a combat in which victory must be obtained by main strength, this education becomes a series of stratagems contrived to turn obstacles aside, to make prudent use of circumstances, to take advantage of all propitious moments, and, when necessary, to come to terms with the enemy. The aim is not to effect a radical and decisive moral revolution, but to find means to make the will pliant, to discipline the character, to hold the passions in check either in order to wear them out or to divert them, to establish a relative harmony between nature and reason, and to assure to the will a nominally absolute power while modifying it in fact by all the concessions which human weakness can take from it.

Such are the two systems, or rather the two kinds of minds, when brought in contrast. By a familiar but perhaps not too inexact a comparison, they bring to mind the two immortal types in which Molière seems to have intended to incarnate them—Alceste and Philinte.

But is it really true that we must choose between these two pedagogical directions, or rather is it possible to make such a choice?

The new psychology, which is in reality only the old severely revised, extending its investigations beneath the surface of words to the things themselves, and studying the living man of flesh and bones instead of the empty phantom which formed the abstract idea of man in himself, answers "No" to this question. No, things are neither so simple nor so fixed. In psychology as well as in physiology we can say: Homo fit, non est. And in the same way, we say that the will grows and is not born ready-made. Why, then, speak of a rigid system of education which would treat the will as if it were a constant quantity perfectly well known? If you trace the curve of development of this faculty you will at the same time trace the curve of the corresponding education. The narrow, dogmatic school of pedagogy which admits of but one view of the education of the will is doomed to disappear together with purely formal and verbal psychology.

And thus we were led to take up in detail, in chapter after chapter, a careful examination of the facts. We studied the birth, growth, and completion of voluntary action in each part of human life in hopes of deriving from our observations some pedagogical rules. At first glance this field of study seems so vast and

its aspects are so various that one could not expect at most anything more than a multitude of very diverse partial conclusions and practical results of very limited scope. Nevertheless, as we proceeded it seemed to us not only that the confusion grew less, but that some general lines became clearly distinguishable.

V.

The first domain which we entered was that of physical activity. We asked what part the will plays in that form of action, and consequently what ought to be the education of the will with relation to it. In this inquiry we had the good fortune to find as a guide a savant who had studied the same questions before us from the point of view of hygiene. From our references to his results you were able to appreciate how much the admirable work of Dr. F. Lagrange had contributed directly to the physiology of exercise and indirectly to the pedagogy of physical education. Although we could not follow him in the details of his learned work, we could nevertheless accept his conclusions and derive from them a guiding idea. We found that Dr. Lagrange had reached a general law of the muscular mechanism which he had derived, not from philosophical or even scientific theories, but from rigorous methods of observation.

What he calls "exercise," or, speaking more generally, the sum total of the movements of the body, passes through three stages so distinct that their intimate connection is sometimes lost sight of, and he has sought to bring this relation into its proper light. In the first place, he points out, there are *reflex* or *instinctive movements*, which are destitute of order, connection, succession, or regulation; then come *coordinated voluntary movements*, which are prolonged and sustained by the same power which has the consciousness of producing them; and, finally, there are the *movements which have become habitual*, which are instantaneous in quickness and so easy to produce that they are almost unconscious. These are the three ages of muscular action. At first there is only a confused *appetition*, which becomes transferred into spontaneous and disordered movements. Then the will actuates the muscle and produces the characteristic phenomenon known as effort, which is a kind of concentration of the nervous force. Finally, assiduous repetition of effort ends in its suppression and has for its final result not an act, but a state or condition of training which is no less characteristic. This rhythm in the process of muscular action Dr. Lagrange explained to us very clearly, demonstrating and illustrating it by a series of striking examples. Nothing could be more interesting to us than to see the proper rôle of the will and its indispensable intervention so clearly pointed out by science without any preconceived theory; to see it proved that while "muscles are endowed with a motive force, an exciting agent is necessary to put this force in action," and to learn that "the will has no direct hold on the muscle; it only acts on the gray matter of the cerebral convolutions, where it produces a molecular disturbance which, approaching nearer and nearer to the fibers of the motor nerves, finally communicates itself by their means to the muscular fibers," thus producing that "muscular wave" which M. Marey succeeded in recording. Contemporary physiology has confirmed the doctrine of many psychologists that every voluntary movement is an acquired movement, that every volition presupposes a representation of the movement, and consequently a previous movement already finished, if only once.

Again, physiology has established by scientific methods the relations of the three successive phases of muscular movement—*before*, *during*, and *after* effort. Physiology also explains that training consists not in habituating one's self to muscular pain, but in suppressing that pain by causing the muscles to acquire the weight, strength, and rigidity or suppleness which enable them to afford the

same amount of work without appreciable pain which previously caused almost intolerable suffering. From these physiological views pedagogy has derived more than one precept. The law of physical education itself flows from them. This education should adapt itself to the three periods which science has indicated by three different methods of proceeding. In the first period it should allow perfect freedom of action to the growing muscles, which need to extend and relax without any regularity. In the second it should teach effort gradually and cause the will to perform its first miracles at the expense, if necessary, of some pain; while in the third it should effect training with the marvelous results which are thereby rendered possible and even easy.

We studied next with some detail some of the consequences which flow from this progress of physiological phenomena. We endeavored to estimate, from this point of view, the comparative value of the diverse methods of gymnastics used in France, Germany, and Sweden, and we took into account what value athletic sports can add to gymnastics from their greater spontaneity and the more complete and regulated character of their exercise. We even considered the services which manual training can render to the physical education of those whose circumstances do not allow them the luxury of tennis, cricket, or football.

But are the direct applications to physical education the only ones which suggest themselves to us by the scientific work we have cited? Could not the psychophysiologist help us to introduce into psychical education the rôle of the will which the physician helped us to follow so satisfactorily in the "functional education of the organs?" Let us begin by seeking the answer to this question in the domain of sensibility, and, to begin at the beginning, let us take up inferior sensibility or sensation.

VI.

We found in the life history of sensation the same trilogy which the history of the will played in physical life, a fact which is not surprising, since sensation and physical life are hardly distinguishable. Ribot showed us the first stage of the life history in the "biological property inherent in living matter which is called *irritability*, the two forms of which differentiate themselves later into *sensibility* and *motility*." This instinctive and almost automatic reaction, the first and blind start or spasm of the living being in response to an external stimulus by a rudimentary spontaneous movement, is, indeed, an humble point of departure for the will. In proportion as we rise in the scale of beings, however, this first sign of life accentuates and defines itself, the different organs of sense become distinct and the impressions are divided into as many series as there are senses, there now being special reactions corresponding to the impressions of taste, touch, sound, and light. But herein is the very mystery of life, that while an inanimate mechanical force will repeat the same movement indefinitely without undergoing any change, in the living animal there is something that changes at each repetition. The power or force of the animal increases by exercise. The sensible impression which is repeated is never repeated in identically the same way, and the reaction which follows is also not exactly the same. At each repetition the living force acts a little more and a little better, like a spring which, becoming bent more and more, carries further each time it is released. From its first exercise to the second, the third, the hundredth, the thousandth time, sensibility gains enough to be no longer recognizable as originally manifested, so greatly has it developed from its rudimentary stage. The "will-to-live," at first fluctuating and vague, asserts itself, and becomes conscious of itself. To look is to make the effort to see, to listen is to make the effort to hear, and so on in all parts of organic life. By each of its senses, as we first remarked of each of its muscular organs, the animal tends to preserve and increase its being. To live is to make the effort to live at

every moment. Now, what is the result of this incessant work of life? It increases the sum of life. Sensibility as the motive force is developed, and makes itself capable, through repetition of feeling what it did not feel at first, of classing and graduating the primitive sensations and directing, modifying, attenuating, or amplifying them. Here, too, effort creates training, the innumerable blind efforts to interpret primitive sensations end in the suppression of such gropings in the dark, the two parallel capacities of feeling and perceiving, emotion and consciousness, at first confusedly intermingled with each other, tend to separate: they become divided and each develops in its own way and according to its own law, their constant exercise refining them until they function without effort. Here, then, in the obscure recesses of the merely vegetative and sensitive life, we have three periods of instinct, effort, and training.

Pedagogy likewise passes through three corresponding states. At first it allows nature to act and awaits the result. Weeks and months pass while mothers and nurses, by prodigies of patience, succeed in establishing even in this domain the beginnings of order and regularity. The great care which young mothers take to teach their young children neatness, as they call it, is only the first application of self-control, of the power of inhibition, the outlines of the empire over self, the apprenticeship which begins in the cradle and ends only with life. It would seem as if all the automatic phenomena of the nutritive life, which are unconscious, irregular, and irrepressible in very young children, would remain so indefinitely did not their education begin at the earliest age. This is only too well understood in institutions of charity, where unfortunate children who have been deprived of these elementary attentions during the first months of life are received, and who feel the effects of this neglect for years.

Thus in this lowest and entirely animal degree the first appearance of the will is made under the form of inhibitory effort. It intervenes to check, suspend, and regulate even the reflex movements of the organism, and finally succeeds in governing the ungovernable. Habit once established, the feeling of effort disappears and the child no longer remembers the way in which he acquired control over himself. There are the same phenomena and the same stages for all the other parts of his sensible existence. By utilizing fugitive sensations long repeated at random the child is finally initiated into the art of provoking and coordinating them regularly. He learns to see and then to look. He learns to hear and then to listen. He learns to use his hands, to move his legs, to eat, to walk, and run. He learns to speak. The whole of these acts begin by a series of blind, unguided awkward movements, and then comes the period of work, for it is work, and singularly useful work, too, although we may not suspect it, for the baby to stammer, prattle, utter cries and make gestures, to keep in perpetual movement, and be always striving after change. This is his way of beginning the study of the world.

VII.

How much more striking is the application of the law we are considering when we pass from sensations to the feelings! The education of the feelings would never pass beyond the stage of animal training were it not for some original material provided by nature for educational discipline to work upon. At the very first there must arise in us a certain number of affective tendencies, the first movements of the heart, emotions which precede all cultivation, sudden and fugitive impulsive feelings, which are nevertheless real and authentic. The child has spontaneous and sincere moments of tenderness and anger, of likes and dislikes, sudden yearnings to love which are causeless, and no less inexplicable movements of ill humor: charming traits of affection, and again the utmost indifference; astonishing intuitions of affection which touch the mother's heart, and soon after

a selfish rejection of affectionate advances which causes tears. All these contradictory emotions are like wild plants springing up confusedly in uncultivated ground, and the first thing to be done in the way of cultivation is to preserve this natural growth, and not destroy it. But presently comes the gardener ready to weed, prune, and clear away this disorderly array. How ought he to set to work? Ought he to impose his will, his choice, his authority upon the nascent growth? No wise mother would think of such a course for an instant. She solicits the growing will of her child adroitly. She aids it to develop a good tendency in opposition to a bad one, a noble instinct to combat a base one. She leads it to exercise its own power of choice and coordination which, we should remark, is as natural to it and as innate as the contrary tendency to be drawn along passively and blindly, with the difference that the former method costs the child effort but renders it happy eventually, while the second will render it ultimately dissatisfied with itself. This is the form that effort takes in the domain of the feelings.

And here, too, effort ceases but habit remains. To the period of excitation, of exhortation and pressure, there succeeds finally the calm possession of the result acquired by the early efforts and the peaceable enjoyment of feelings and sentiments which thenceforth are an integral part of the character. From this point begin again the same work and the same upward progress, but in a higher degree and operating upon feelings which are more delicate, more complex, and more difficult to determine and establish.

VIII.

In the domain of the intellect it was easier to recognize the three degrees of the will. With M. Ribot we placed spontaneous attention at the bottom of the whole psychology of the intelligence, and with him, too, we found that spontaneous attention is not an act of pure intellect, but is directed only where some interest or attraction or some desire draws and fixes it. From which observation comes the first and direct application to pedagogy, viz, not to try to be abler than nature, but to commence where she commences and, first of all, to draw, as she does, the spontaneous attention of the child by things suitable to it. We should not try to make the child attend at first to something which does not interest it, but should find something to interest it, because it will then give attention without knowing it, and will listen to the story which is told it, or look at the object which is shown it, or take interest in a game, not from being asked to give attention, but precisely because there is no need to ask it because its curiosity has been excited.

But is this the whole of psychology and pedagogy? By no means. In this department of the intellect still more than in the others, the second phase is not slow to appear. Among the many objects which attract our attention and to whose changing attractions our minds submit listlessly as they present themselves one after the other, we must learn to eliminate a great many voluntarily in order to retain only a few, and these not the most attractive, since they have lost the charm of novelty and variety in proportion as we submitted them to a methodical arrangement. This second and laborious form of attention is an effort of the intellect, doubtless proceeding from the first spontaneous form, but much more under restraint and fixed.

With voluntary and deliberate attention there begins in pedagogy, as in psychology, the long phase of the struggle which constitutes the essential fact of education and of civilization itself. Only here, too, instead of explaining this effort of attention by a kind of permanent miracle of the will, the great object of the teacher should be to do for the artificial attention of the intellect what nature does for spontaneous attention, namely, excite the interest, because that will produce attention. This is M. Ribot's conclusion as regards psychology, and we are willing to accept it for pedagogy, with the proviso that when we speak of "excit-

ing interest" we must not be taken to mean that we effect this only by some attraction acting on the mind from without. The mind is not interested only in what is presented to it, but is also interested in its own representations, in its own work, its play, and its efforts. Effort is sometimes the most exquisite of pleasures. The pedagogue, therefore, who should leave his pupil in ignorance of intellectual effort would be in equal error with Rousseau, who thought to leave Émile in ignorance of the existence of God.

In all mental operations we can distinguish a first degree, wherein the mind is almost a passive observer, attracted, amused, and led, and a second, in which it reacts, at first spontaneously and as if by intermittent flashes, and then continuously and methodically. To look involves more mental activity than to see; to observe requires more activity than to look. To recollect and reflect, to abstract and generalize mark still further degrees in the proper work of the mind, while judging and reasoning are its crowning effort. Now, it is this crowning work toward which the mind of the child must be led little by little. It would be impossible to learn to think without first learning to will to think. Reasoning is not only thinking, it involves the will to think. It is thought guided, or rather a series of thoughts which are compelled by an effort of attention, that is to say, of the will, to take a certain logical order. Great reasoning power presupposes great will power applied to directing the intellect. Reflection is attention in the second degree; in other words, it is the will willing to take possession of itself. William James has defined the will as the relation between the mind and its own ideas.

To neglect or diminish the rôle which effort plays in the intellectual life would therefore be to mutilate that life; and to substitute, generally, interest or external attraction in place of effort would be to take from man that which makes him man, namely, the faculty he possesses or acquires of interesting himself in things in which he is not compelled to be interested. He is himself the producer of certain forms of interest, the inventor of certain attractions which do not exist in things themselves. These are, if you wish to call them so, autosuggestions, but they often become the most powerful of all the springs of action. With this reservation, which is only an explanation, we can acquiesce in M. Ribot's rule which makes of the act of volition, even when purely intellectual, a phenomenon which is complex by its definition, being always an ego-affective and an ego-cognitive act. The full result aimed at is not reached until the effort accompanying the act having become insensible (for perhaps we ought not to say unconscious) allows us to repeat incessantly and without trouble what we did at first only by a praiseworthy act of the will. The young scholar who has learned to fix his attention and exercise his memory, who has compelled his mind to represent things to itself without first seeing them and then to perceive the relations of the things and finally the relations of the relations themselves, as Spencer says—that is to say, to conceive abstractions further and further removed from observations of the senses—the scholar who has achieved this mental process already possesses the mental quality of the mature student to whom intellectual effort has become a second nature. The education of the will was, therefore, found to be a normal process, because it began by utilizing a very feeble natural instinct and cultivating it separately, developing it laboriously and artificially and finally making it into a second nature better than the original.

IX.

We concluded the review of the different domains of the mind by studying that in which all the others meet, and we found that in the domain of moral action or conduct there are also three successive stages. Here we saw that there spring up spontaneously from the depths of human nature not moral ideas or sentiments, to be sure, but certain first feeble desires, which, however unstable and vacillating

they may be, can not be treated with contemptuous disregard. Doubtless the child has no abstract and general idea of justice and injustice, but it feels an injustice very keenly, which is one of the earliest ways of understanding or divining the law of justice. It could not formulate the rule of equality; but its cries, tears, and anger show that it will not endure inequality, at least to its own harm. These are but feeble and doubtful manifestations of the moral sense, it is true, but suppose a child in whom they had never appeared. Would it ever be possible to instill into its mind a notion of good and evil, if it never had experienced this confused and vague anticipation of those abstractions in its own feelings, so that it could reason by analogy or perceive by intuition? The teacher—and in the child's earliest years the teacher is a woman—must endeavor to aid these imperceptible beginnings of an almost instinctive morality. Let this little stem, hardly visible at first, grow and await the result. It is the nascent will, which must not be touched even to help it start out of the earth. Let the sun, the rain, the coolness of night, and the nourishing fluids of the soil and its own sap do the work.

We must not forget that side by side with the instincts which we call good, others which we call bad develop in the child with equal vigor. In reality these instincts are neither good nor bad; they merely exist like all natural things; they *are* and struggle one against the other. It is our work to defend the weaker against the stronger, the superior emotions against the mass of coarser feelings, the more delicate and complex dispositions, the more truly human inclinations, against the simple, gross, and blind appetites of pure animality. Here begins the second stage of moral education, the revelation of effort. To choose is an effort, but to choose the most difficult and least natural of two courses is moral effort which the child must be taught, and which the grown man himself goes on learning and relearning until his last hour.

When does this phase of moral apprenticeship begin? No one can say, for it begins long before the child can suspect it. The mother says, "You must," "You must not," and as if by a miracle makes her child understand this command before it can speak or walk. Its will is not yet in action, notwithstanding that it has been solicited, attracted, and won by a thousand seductive persuasions of speech, of smiles, of plays, of examples to imitate, of caresses and threats, of love and fear, of mechanical imitation, and of excitation of the nerves, without mentioning the secret influences of heredity. But as time goes on and the natural development of its understanding proceeds, the education of the child should make a direct appeal to the effort of the will. Good and evil should be explained and be contrasted with each other. The schoolmaster who has taken the place of the mother represents an authority which exacts obedience imperiously instead of obtaining it by entreaty, surprise, or persuasion. The idea of duty now appears, and with it the notion that where there is a will there is a way. Hence, the necessity of willing. Who is to will, the master or the pupil? Both; but the master's will tends to prod the pupil's into action, an effect which is usually attained in one of two ways. One of these looks for an immediate result which is apparently very satisfactory, and consists in bending the pupil's will in compliance with the authority of the master. The other aims at another end, incomparably more difficult to accomplish, and this is to make the young will comply with a law which it makes itself and yet respects. This constitutes the wide difference between the education based on authority and the liberal education. To act from external compulsion or from inner reason, these are the two opposite systems of the moral government of the child, and later of the man. There is no need to insist upon our choice between these two pedagogies and our reasons for it. But we did endeavor to point out the real character and conditions of that effort to act from inner conviction which we regard, in common with the moralists of the liberal school, as the masterpiece of the education of the character.

The law which we found to prevail in the domain of physiology, also holds good in our psychological history. Effort is an expenditure of energy. Moral or intellectual effort, as well as muscular, is an intermittent phenomenon, a tension of the spring which is followed by a release. It can be renewed, but the renewal can not be continued too long with impunity, for that would injure the machinery and destroy its elasticity. The teacher, therefore, must refrain from keeping up the moral tension of the mind continuously. He should endeavor to remember that the exercise of the will should consist of a long series of short, distinct efforts, and not a long, uniformly sustained one. If this alternation of work and rest, of energetic action and relaxation, is necessary for the adult at all times, how much more necessary is it to insure these intervals of relaxation for the child, without which his good disposition itself will become embittered or even exhausted. To forget that they must stop short of the beginning of fatigue, and so prevent wear and tear of the spring, is the danger to be guarded against by even the best of pedagogues. There is always a considerable difference between our own power of application, intellectual or moral, and that of our children or pupils, which we tend to lessen at their expense through impatience. Let us learn patience and, as Rousseau said, learn to lose time in order to gain it. What will best aid us in this attempt is a knowledge of the real place of effort in the moral life, a knowledge which will teach us not to esteem it too highly or too low. To this end we must familiarize ourselves with the new ideas which biology has revealed to us.

Under the microscope the smallest piece of organic tissue is seen to contain thousands of cells in juxtaposition which are constantly splitting up, ramifying, and intermingling. They are the ultimate particles of living matter. They constitute a world by themselves and yet a world which forms only one living being. This indescribable multiplicity ends in the perfect unity of a living being, and this fact of organic life is an exact image of the life of the mind. It also is composed of an infinite number of infinitely small acts: feeble desires which become volitions, the volitions becoming will; reflex actions which gradually become endowed with consciousness, these conscious movements ending in voluntary movements; impulses and inhibitions whose origin is unknown, but whose free play finally creates a psychical activity which has nothing analogous in the rest of the universe. When we consider all these intermingled series of most diverse phenomena, which, starting from the lowest plane of the vegetative life, reach to the highest summit of the moral life, what imagination can fail to be confounded with a network of such extent, such delicate fragility, such inextricable complication?

Now, just as the life of an animal is no longer for us a simple thing like the word which designates it, but a living unit composed of millions of living cells, each imperceptible to us, so the moral life appears to us as nothing more than the resultant of innumerable acts each of which is insignificant in itself. It is, like the life of the body, a perpetually changing existence, which, in the last analysis, resolves itself into a succession of microscopic elements extending to infinity. And it is precisely and exclusively with these infinitely small elements of action that our work as educators is concerned. To bind the human being and transform him, as it were, by main strength and at once, according to our will, is something we can not do. But to take the young child, a being pliant and plastic, made of fleeting and changing matter which daily and hourly acquires new atoms, grains of sand or rather grains of life, which accumulate and combine with each other in mysterious and unfathomable elaboration, and intervene in the thousands of fleeting minute acts by which he gives us hold upon him, this we can and should do. These are very trifling matters perhaps some one will say, without perhaps sufficiently reflecting upon the important part which contingency plays in human nature and possibly in nature at large.

It is true that each of the little victories over a child may be nothing in itself. Doubtless the inconstancy of the child, his versatility and levity, make it seem as if everything must be begun over and over again. But is not this plasticity of infancy the very reason for its education? The endless series of eddies of the invisible currents that move incessantly in the depths of the child's being, the insignificance of all these movements taken separately, and their incessant repetition in unexpected ways, the impossibility of measuring their immediate effect or of calculating their remote consequences, are not all these considerations the surest guaranty, in the practical field, of our free will and are they not our best reason not to despair of it? Who can say how so feeble a creature as a child will turn out upon whom so many thousands of ideas, sensations, and feelings of attraction or repulsion, of pressure from above and below, must exert their influence and incite to action during years of slow formation?

We must not disdain "the infinitely small" of the details of school life, and ask contemptuously what signifies missing one recitation more or less? What if one lesson be ill learned or one duty be ill done? What effect can merely one expression of encouragement or one example have, or a single word or gesture, or a look? These nothings are the dust from which time makes a solid rock, and they are in the hands of the teacher who thus, by such infinitesimal degrees, influences the pupil. The teacher can never, to be sure, become the master of his pupil's nature irrevocably, but he can have thousands of opportunities of depositing in the young mind, unnoticed, a seed which may possibly remain forever inert but which also may spring up. No one can tell whether a given insignificant resolve taken by the pupil some day about some trifling matter of his infantile life may not be the first term of a series which shall continue beyond all calculation. What is certain is that there is no act which does not leave some trace, not one which may not be the beginning of a habit, not one which does not have an appreciable weight in the balance in which are weighed the imponderable elements of a character and therefore of a destiny. Such considerations are sufficient to impress upon the teacher both the humility and the grandeur of his work. He labors to form a character as nature builds up a coral reef. Molecule by molecule, atom by atom, he elaborates the substance of the moral being. There is nothing grand in this process except the endless addition of little to little. The effort of the will is in the moral life just as much and just as little as the muscular effort is in the physical life. Child or adult, what can man do? It is with his will as with the beatings of his heart. Its rhythm is short. The largest supply of air for respiration lasts but a few seconds, and the greatest provision of virtue hardly suffices us to face the smallest crisis, after which we must take breath and brace ourselves anew for the next struggle, which, too, will not be the last. And the superficial observer cries out: "Poor wrestler, you do not win. Why struggle forever, always getting up merely to fall again?"

But this observer is mistaken, and the proof that we advance a little by each little victory without our knowing it is that after a time the moment comes (when, how, why, no one can tell, either for another or for himself) when effort is found to have ceased. At least it ceases to be effort but is now a condition, and this is the third phase of the evolution of the will. What once cost us so much pain is now ours in peace. There is now no more bitterness of renunciation, no more agony of sacrifice, but peaceful calm, soon to be followed by a sense of deep satisfaction. This condition is like the effect of an acquired velocity whereby an obstacle is overcome almost without noticing it. The first upright act done by a child, the first penny or the first plaything he finds and returns to its owner, the first self-imposed privation for the sake of his fellows, the first spontaneous acknowledgment of a fault which he might have concealed—each of these little efforts is an event in his life, and they must be often repeated in order to become

easy and familiar; but sooner or later they all become so thoroughly a part of him that he will do, offhand and without thinking of it, what at first seemed to him to require great courage.

Can we say that this final condition is morally inferior to the preceding, on the ground that where there is no effort there can be no merit? Such a judgment would betray a very rudimentary conception of merit, a survival unchanged from the recollections of infancy, when the hesitating will to do right is stimulated by maternal ruses. The end of education is good conduct. And good conduct does not consist of one act, but in a series of acts; it is not a fortunate accident, but a permanent condition; not the deeds of a day, but of every day. Do we seek in education a fortunate accident or a permanent equilibrium? We are forced to begin by obtaining this equilibrium once for all at a great price, but the important thing is to give it permanence. We must at all cost remove from it the character of chance, which gives interest to the moral drama as long as the issue is in doubt. When this is no longer the case, then has victory come and there is no more combat. Interest and effort no longer concentrate in one act, but are spread over the whole life, and the whole of life should be our real end. Doubtless the end supposes the means, but how much it surpasses them! The habit of virtue in which the isolated acts of virtue become consolidated is the end we aim at. Morality without effort is doubly virtue, precisely because it raises us to a point where we are no longer tempted to admire ourselves for having merely done our duty. We are nearer the ultimate truth of things and the just evaluation of real merit and the real dignity of humanity when we can say in all sincerity after a good action, "What I have done is the most natural thing in the world," than when we say involuntarily, "I have just done a very fine thing." The proof of this position is that if I were to congratulate one of my hearers for returning an overpayment in change at a shop he would feel very much injured and could never pardon me for doubting him.

X.

The three great theories of moral education may be reconciled as follows: The optimistic theory of Rousseau, which teaches us to believe in the natural goodness of man and seems to propose to recover the lost paradise of primitive simplicity—the state of nature—we accept by confining it to the first of our three periods, the earliest stage of education. The stoic and Kantian theory, which appeals to effort and liberty, this we accept for our second stage, which is the longest and most laborious of all, and we add to it, besides moral effort properly so called, all the other forms of physiological and psychological effort and the different varieties of intellectual effort. Finally, there is the Christian theory, which lays so much stress upon the effect of habit, of accepted authority, of established practices, and of the external influences which contribute ceaselessly and gently to fashion our will; this we accept also, but only where its domain seems legitimate and without risk, namely, in our third stage of education, in which we have only to maintain through exercise a condition of training already duly established. It should be added that as these three states or conditions exist simultaneously in us, the three methods of education should also be exercised simultaneously within the limits of the respective domains which we have assigned to them.

XI.

Now to conclude, can we draw any general rules for the pedagogics of the will from our observations on the various chapters we have skimmed over? We can, and the following is a summary of such rules:

(1) Psychology teaches us that the will is not a special faculty limited to a certain domain and exercising itself in certain determinate forms, but it is spiritual

force in all its plenitude; that is to say, in its variety as well as unity, in the different phases of its development, from the rudimentary spontaneity of instinct up to full and clear self-possession through a conscious activity which is free and guided by reason. From this doctrine pedagogy concludes that there is no special education of the will. All education is an education of the will or is nothing at all. The will is formed while learning to think, to feel, and to act. To will is nothing else than to direct and lead the mind. To direct the intellect is not merely an affair of logic, but is a most complex act involving, even though we are unconscious of it, innumerable elements, affective, representative, and active. To learn to will is to learn to think and look, to act and react, to control for a definite purpose an immense apparatus whose mechanism is unknown to us, but whose movements we call by the different names of instincts, feelings, thoughts, and volitions. If the will is the unifying force which subjects the passions to the reason, the caprices of the imagination to the laws of thought, and these laws themselves to the supreme law of goodness, the teacher does something for the will each time he gives a correct idea, excites a noble sentiment or prompts a good act in the pupil, and each time he contributes to strengthening a good inclination or weakening a bad one, corrects an inexact thought, or helps the pupil to a clearer view of some reality whether external or internal. It is impossible to will correctly without knowing what we will and why. It would be either an empty play of words, or, if attempted seriously, it would be a sad mistake in education to undertake to cultivate the will separately by a kind of artificial selection, and arouse its action alone in a pupil without regard to the intelligence and the heart. We do not determine to will for no reason, but we will because we like and in proportion as we like. It has often been demonstrated that the will can not be reduced to mere desire, but it is nevertheless a superior form of desire, which victoriously opposes lower desires; it is a desire founded in reason—a human desire which silences the merely animal desires. We readily admit that the will is not merely the cold and dry operation of the understanding; but that there can be will without understanding, that we can will without thinking, and will well without thinking well, is what Descartes taught us to deny, and we reflected upon his profound remark that "from very great clearness in the understanding follows a very strong inclination in the will."

(2) Psychology reveals the will to us under two aspects, sometimes as a force of impulsion and again as an inhibitory force, as if there were two functions, one stimulative and the other repressive, apparently opposed to each other. One has the ardor of desire and the warmth of passion, while the other is the *veto* of wisdom, the resistance of reason to the first impulse that draws us on, and is the result of comparison and selection—a calculation of consequences.

Pedagogy finds two corresponding aspects in the education of the will. It affirms that it is necessary to awaken the living forces one after the other, to arouse the courage and provoke initiative, thus producing a happy and healthy excitation, which becomes transformed into quick, lively, bold, possibly rash, actions, but of the kind of rashness which usually succeeds in youth. And, on the other hand, the young man must learn to retire within himself for examination and reflection, to use all his strength of mind to restrain and contain himself, to be *compos sui*, a process which applies to the feelings, the intellect, and to all forms of activity, both of body and mind.

These two types of the education of the will are nearly the pedagogical translation of the double stoical precept *sustine* and *abstine*, by extending it from the feelings to all the other states of the mind. *Sustine* means: Have courage to suffer pain and endure fatigue, and through this endurance produce and set in motion the forces which are dormant in you. This is active and positive effort. *Abstine:* This denotes the other form of courage which consists in renouncing

pleasure, refusing what we wish, resisting instinct, controlling our passions with their sophisms and seductions. This is privative and negative effort, and is perhaps more difficult than the other, at any rate it is more painful in being prolonged, while the first acts at once, rapidly and decisively.

(3) Psychology shows us the human will passing through three phases or stages. First, there is spontaneous activity, or the first instinctive movements of the new-born child; next is the conscious and reflective activity, which is manifested through effort; and finally there is the habitual activity, which is the synthesis of the two preceding.

A separate pedagogical treatment corresponds to each one of these three psychical states which would not be suitable for the other two. To the earliest, opening, psychical phase of development an expectant policy is adapted, one, so to speak, of voluntary ignorance; a let-alone policy which permits the infant to do and speak as it wills and expand its powers like a young, growing plant and as freely as a bird sings. The sacred stream of life is springing into being and we ought not to confine it and guide it in artificial rills from the start. *Primum vivere, deinde philosophari.* Let the child have pleasure in life, in the life of its senses, of its intelligence, and its will to the fullest extent, and do not rob it of its first and short moments of joy in living. The worst of all educations is the solemn, joyless education. With us in France, notwithstanding that so many controversies exist, there is no question on this point. The maternal method has been a constant tradition in our pedagogy, and has been maintained by all French women who have written on pedagogics from Mme. Guizot and Mme. Necker de Saussure to Mme. Pape-Carpantier and Mme. Kergomard.

But soon comes the next stage, that of conscious effort. It is as long as the preceding is brief, and is the age of ungrateful toil for the teacher. And yet what splendid contests take place in this twilight of transition. It is the period when physical, intellectual, and moral education all concentrate their methods of action. It is the period when the will is forged by the blows of effort. To imagine that this period is a time for easy and pleasant work, for instruction by play, by short methods of study, by recreations, by study without mental effort, for mere moralizing without spiritual struggles, inculcating automatic morality, as it were, would be to abjure the very programme of liberal education and substitute for it some nondescript training. Therefore our pedagogy will never insist too strongly on the gymnastics of the will with which infancy and adolescence are usually filled. I do not need to recall to your minds the fine passage of Prof. William James, the Harvard psychologist, in which he says: "There are many ways of measuring the human will, but the most exact and surest measure is expressed in the question, Of what effort are you capable?" We subscribed to this opinion.

At the same time we took care not to pass in silence or put in the background the third stage, which is the crown of the whole edifice. This is the stage of habit acquired by conscious effort. Thanks to effort itself, there is no further occasion for effort. Habit has engendered aptitude, and it is only necessary to maintain it. It is only a question now of the cultivation of the feelings, of increasing knowledge, of protecting our physical, mental, and moral energies from the decay which comes from want of use. We must take care not to risk incurring the famous reproach: "You know how to conquer, but you do not know how to use victory."

There is only one more remark to make concerning the correct interpretation of the law of the three stages. It would be an unfortunate mistake to suppose that the entire mind passes as a whole from one to the other of these three phases. We must, on the contrary, take each of our sensations separately, each of our feelings, our intellectual faculties, and our moral qualities, and remember that all follow this course, but unequally, each with its own velocity and encountering in

each individual a resistance which varies with that individual's nature. Not only are there differences between man and man, but in the same individual there are the most astonishing inequalities of development between the diverse faculties. A man may reach a high degree of intellectual culture whose feelings and sentiments are still in an embryonic state of development. An artist of genius may be a child in character; a mathematician may be destitute of æsthetic taste; a man capable of heroic self-sacrificing actions may yet be unable to restrain his temper. One man requires strong effort to resist a temptation which would not disturb the equanimity of another. It has been said that there are among our contemporaries people who are still in the thirteenth century, and there are waste places in the depths of the most cultivated minds which form a singular anachronism with the rest. The much spoken of harmonious development of the faculties is only a pious wish, and this is perhaps one of the principal reasons why we should be tolerant, never despair of a person utterly, and never despise or hate. To an eye which could penetrate everything there would be few souls so saintly as not to have some sinful stains, and none so defiled as not to have preserved some spots of divine purity intact. If we can not expect grown men to remember the things they have had no time to hear, let us remember this fact always in our dealings with children, and instead of being vexed at the sudden lapses, want of equilibrium, shocking absence of harmony in the little ones, let us rather study how far each has progressed in the different parts of his development and rely upon the more advanced faculties to stimulate the others.

(4.) Psychology does not stop at demonstrating to us the general fact of a transition from instinct to effort and from effort to habit. It points out the consequences of this transition and shows how this rhythm is the condition of progress. When we have reached the state of habit or training in any of the mental faculties, this higher state becomes the point of departure for a new series. This is because habit has made us masters of one part of the domain to be conquered, which we can make our base for a further effort. If habit had not, as it were, transformed the moving sands of individual efforts into solid ground we could never advance. We can say of these fixations and acquisitions due to exercise what economists say of capital, that it is accumulated labor and is for that reason the means of producing new work. Capital is not created simply for idle enjoyment, but becomes an implement and works in its turn. In the same way the moral or physical qualities which we have acquired are not mere ornaments or a source of satisfaction to us, but they are means for our doing more and better. We understand easily to-day what was unintelligible yesterday and can consequently apply our thoughts to new objects, which, in their turn, seem as difficult now as the others did formerly. Reason triumphs over passion, and conscience, having become more delicate, no longer hesitates at junctures in which it would have been in great straits some time ago. But will there ever be an end to the struggle? No; the strife is only carried a little farther on. Conscience demands more of us because it now sees more clearly and can no longer content itself so easily. When we climb the long sloping terraces of a high mountain we find ourselves higher at every stop, but we also find that we must start again and climb still higher and more vigorously.

If this is the way of life, so ought it to be of education. We must habituate the child to the real view of progress, the real measure of duty; duty increases as we mount upward in life. Progress is not a movement up to a certain point, but is movement itself. When movement ceases, progress ceases. Let the school, then, from its first beginnings, initiate the child to the evolutive and progressive conception of moral life, and not imprison him within a narrow horizon nor atrophy in him the sense of progress which is like that of infinity. Undoubtedly an imme-

diate object, a clear and near limit which he can attain, must be pointed out to the short sight of the child. But it is not necessary to make him believe that after attaining this first plane all his work will be done. We must not kill in him the instinct for something better, but, on the contrary, we should habituate him to look far ahead, to put his object always higher, and never let him believe that he will ever be able to close his account with his conscience. And in connection with this point of view, let us take care that certain school methods, which are excusable, useful, and even necessary, perhaps, for a time, do not become dangerous from being continued beyond the period of infancy. We must, perhaps, provoke and stimulate effort in very young children by indirect means, by the inducement of a reward or the fear of the punishment conventionally attached to such or such an act. All that should disappear with the toys of infancy. If the pupil should leave the school or lycée with a puerile notion of a very correct set of moral account books, keeping a debit and credit account of so many good marks, so many prizes and occasions of honorable mention, he would have a most wretchedly mean idea of his duty and his destiny. The more good one has done the more remains to do. In this domain there is no end of learning.

And he alone is a man who, not making life a mere close calculation of interests of longer or shorter range, allows himself to be carried away toward an ideal by some inspiration of generosity, without being able to say exactly what he gains by it, who loves the good because it is good, the beautiful because it is beautiful, the true because it is true, without first reckoning what he will make by it. To live as a man ought, his heart should beat with all noble emotions, his thoughts turn to all truths; he should devote his will to all noble causes. As to the rest he should confide in and refer all final results to One who is mightier than we, who has placed all these instincts in our hearts and who beyond doubt knows whither they will tend. And this is the spirit which the liberal education should resolutely oppose to the other.

(5) As to springs of action and rewards and penalties, psychology has some light which pedagogics can profit by. To attempt to direct the will through a single one of its powers, to exclude all incentives and promptings from consideration except rational motives alone, is to take a part for the whole, or, in other words, it is to forget that there are several ages in the will, several degrees of volition, that even the highest degree of the will is not free from all desire, all instinctive impulse, interest, or feeling, or, in a word, from all bond between it and the individual, and that in consequence any one of our determinations, which is in appearance the simplest, is never sufficiently so to exclude an admixture in different proportions of many affective, cognitive, and active elements. To separate these may be an exercise to be recommended to lovers of psychical analysis, but it is the act of the teacher to associate them and make them concur in an intimate and almost indivisible manner in the work of education. We can never tell how many rivulets contribute to make the great river of the moral life.

(6) Finally—and this last remark is of importance, for we must not think that we have nothing to do but to follow the natural inclinations—what is the essential and characteristic fact in the will according to psychology? The answer is quite simple—self-control. It consists in what M. Ribot very happily termed a power of coordination with subordination. Coordination is not possible unless there is a supreme and single principle of action to which all others are subordinate; each domain of activity supposes a central point to which everything is referred, a view of the whole which dominates all details, one end to which everything tends. Now we can not disengage this end, this law, this unity, and isolate it from the chaos of our sensitive life without great difficulty. It requires a strong effort to accomplish this. And herein the Christian doctrine of sin is nearer the truth than all the superficial and indulgent forms of optimism which, by declar-

ing that man *is* good, would save the trouble, it would seem, of trying to make him good. He is not born good. Yet he can become so, but only by continuous effort, which is almost a miracle itself. The mass of our instinctive and animal inclinations is by far the largest and heaviest and the most invasive of all. In order that reason should shed light in this darkness, overcome the beast in human nature, and make mind prevail over matter, man's will must consent to choose, contrary to the natural course of things, what savants call the line of greatest resistance, and choose once, a hundred times, and always, the most difficult course of action. It has been said that the simplest criterion of morality is this: When hesitating between two courses, choose that which costs you the most sacrifice. This is the rôle of the will acting under the reason, that is to say, the action of the will at its highest power. Thus acting, the will converts a mere individual into a real person. Someone has said that only one man in a thousand is a person. And it is the peculiar province of the will to establish this self-mastery, both of mind and body, and in the mind itself the relative mastery of emotion by thought and of thought by action. Relative mastery, we say, and progressive, too, for our entire life is passed in winning from passion, foot by foot, a little ground for reason, little triumphs of duty over interest, and of free will over blind appetite.

This psychological definition inspires, it will be seen, an entirely new pedagogy. Of course the idea of obedience, the pivot of the old education, is not abolished, but except in infancy, when ideas can not be seized unless visibly presented by living beings, what should be taught is the obedience of the will to its own law—moral autonomy. But we ought to have the courage to tell even children themselves the truth while teaching them self-control, which at first is manifested by obedience. Then they will come to obey, little by little, in the same way and for the same reasons that we do. They will learn to obey not force or custom, or the uncomprehended and inexplicable order of external authority, but will bend their will, as we do ours, before the universal will, which announces itself, under various names of nearly the same meaning, as reason, duty, truth, or justice.

XII.

In finishing this summary—I must beg your pardon, ladies and gentlemen, for having made it so long and yet so incomplete—I wish to ask you one question: Do you think that the doctrines we have been studying together contain the elements of an education of the will suited to our time and country? For my own part I thoroughly believe so, and I believe further that this pedagogy, adhering to those doctrines in broad lines, lies at the foundation of French State education from the primary school to the lycées and the university faculties. Others have extolled methods of education which are evidently imposed by distrust of human nature; they have required that the child, the woman, and even the man should be intrusted to them as needing tutelage. They have promised to exercise this tutelage for the good of humanity, and they think they are rendering a service to human nature by protecting itself against itself, by constituting themselves, especially through education, the intermediaries between God and man from the cradle to the grave. We do not accept this part of perpetual minor for mankind. We wish to place man as soon as possible in possession of his own will, his own reason, and his own conscience. We do not ignore the difficulties or dangers of the task. But no danger is so great as to surrender one's own self, and to think and will by proxy.

In accepting the mighty burden of liberty for ourselves and our pupils, we believe that we are performing not only a moral and philosophical work, but one profoundly religious as well. As the thinker whom we have so often met in this

course, M. Payot, used to say: "To have respect for human nature in ourselves and others is to realize in ourselves and others the Kingdom of God." We pity those who, being able to see God only through denominational forms and traditional ceremonies, do not see Him in our doctrines, and do not perceive that He is nowhere more present and more profoundly active than in that humble sanctuary of education which they call the school without God. We commiserate them for not perceiving that to bring up children in the constant, careful respect for their own nature, and a constant effort to rise toward the good, is to bring them up in the very atmosphere of the Divine, to make them breathe the gospel air and penetrate them with God. Not, indeed, with the God of images and formulas, but God in spirit and in truth. We have, at any rate, the advantage over our opponents that we take from their creed whatever of the Divine it contains and respect it in the highest degree, while they refuse to do the same with ours.

In all times the reigning religions have spoken of atheism as the religion of the future. Socrates and Jesus Christ were charged with no other crime than atheism. Let us allow ourselves to be called atheists, then, provided that our education, while awakening the sacred spark in the souls of our children, continues to make them adore the things of God instead of the word alone, and to put each one of them all the days of his life, face to face, in the secret places of his heart and conscience, in living contact with the Divine.

CHAPTER XVII.

EDUCATION IN ITALY.[a]

I. Progress of public education in Italy. By Dr. Tullio de Suzzara-Verdi.
II. The Baccelli bill for the reform of higher education in Italy. By Prof. Alexander Oldrini.

I.—PROGRESS OF PUBLIC EDUCATION IN ITALY.

By TULLIO DE SUZZARA-VERDI, M. D., K. C. I.

CONTENTS.—Introduction—Organization—Functions of the ministry of education—Officers acting under the minister of education—Hygienic condition of the school buildings—Infant schools, infant asylums, and kindergartens—Elementary instruction—Effect of compulsory education on illiteracy—Complementary schools for girls—Normal schools—Cost of primary and normal schools—The teachers' pension fund—Physical education; gymnastics—Manual training—Agricultural schools—"Professional" schools—Technical schools—Secondary classical schools (ginnasii and licei)—Universities—Superior institutes—Convitti (boarding schools)—Colonial schools—Diplomatic colonial school—Other special educational agencies—Public libraries—Philological clubs—The Dante Allighieri Association—Special schools for adults in the agricultural districts—University extension.

In estimating the progress of a nation in education, the true test of intellectual improvement, one should take into consideration its history, political, religious, and economic, especially when that country is Italy, with its history of wars and revolutions, of invasions of barbarous foes, of religious fervor and repression, with its growth and decline of enlightenment; a country scarcely ever united, free, and independent, until King Victor Emmanuel entered Rome and from the terrace of the ancient capitol in 1870 sent forth his stirring message, "Ci siamo, e ci resteremo."

Yet how difficult to eradicate habits and customs which have taken root amid such eventful transitions and have crystallized by time into usages and practices that have almost acquired the attributes and observance of law. A young country like ours can hardly realize the difficulties in the way of the reformer in that old country, and judge of its progress, unless the comparison is made within the sphere of its own life, between periods of its own existence, instead of between it and other nations more or less fortunate. Moreover, progress in education is never by fitful changes, under the impulse of this or that legislator, philosopher, or political economist, but by a gradual and continuous process.

Italy, which in former times attained the highest pinnacle in the world of belles-lettres, science, art, and philosophy, has sunk at other times to the depths of ignorance. Education became then the privilege of the few, an aristocracy of learning, as it were, from which the vulgar were excluded. These periods of obscurity have now passed away. Italy has entered into the ranks of competitors for more knowledge; the proof appears in the feverish desire for education and reform from the moment her unification and independence had been attained. Not one session of its Parliament has since taken place without some progressive

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[a] For information relating to education in Italy in previous Reports of this Office, see Report of 1890-91, vol. 1, pp. xviii-xxx and 319-339; 1893-94, vol. 1, pp. 325-383; 1894-95, vol. 1, pp. 543-582, and 1898-99, vol. 1, pp. 839-870.

educational measure being submitted to it or voted on. These effor ment are now so frequent that complaints are even made, and not justification, that the changes in the curriculum of studies, followin so rapidly as they do, are embarrassing, if not positively injurious. they often are, both to faculties and students; to the faculties, bec often ill-timed, considering that the development of studies in the c time and uninterrupted continuance; to the pupils, nay, to the parer because they are thus forced into an expense for the changes of te see the old books, that used to pass from one child to another on consideration, go to the wastebasket for kindling purposes.

These changes often cause great discontent and irritation among who rise in protest, and receiving no satisfactory response from the be, break out in riot, requiring the presence of the troops to quell th

ORGANIZATION.

For administrative purposes the country is divided into commu nces. A commune is the smallest division of territory having a loca A province is a large division of territory containing several c commune is governed by a "sindaco" (mayor) and a communal elective). A province is governed by a "prefetto" (a kind of territo and a provincial council. The prefetto is appointed by the national The functions of these two orders of governing authorities are disti to public instruction and police, which they have in common. The the country is about 32,000,000. The area is divided into 8,020 com provinces.

The education department is organized throughout the Kingdom head and system, so that the grade of one student corresponds t another, though instructed in different schools or sections of the co is not such a thing as a suspicion that a school or university be not ing, or that students coming therefrom may require a special tre examination for fitness. The students are all alike; they have beer the same plan, and hence no discrimination in favor of one or anoth of the alma mater being in good or bad repute is necessary or possil

FUNCTIONS OF THE MINISTRY OF EDUCATION.

The minister is a deputy in Parliament temporarily relieved t functions of minister of instruction, and as such he is a cabinet the appointed guardian of the primary school system of the King administration of this system there is established a large depar officers are the overseers, the advisers, and the reporters on all matt with or pertaining to the primary schools.

The minister, as a cabinet officer, proposes to Parliament such la ments to laws as he deems advisable for the good and advancement and he is also the "executive" of all the laws on education enacted b

The minister issues rules and regulations for the direction of th annually announces the programme of studies that is to be carri teachers.

He suggests to the communes the erection of new or the repairin ing of old school buildings, and wherever the communes are too po to the recommendations of the minister he is authorized by the pro national law to give such financial assistance, in the form of loans as he may deem proper.

The minister decides upon questions arising in the communes or school boards regarding the administration of the schools.

He deposits in the bank for the pensions of teachers 300,000 lire, which Parliament has appropriated annually for ten years to increase the pension fund and to encourage the communes to do the same, and the teachers to become contributing members. The success of this fund has been unprecedented; in a little over twenty years of its existence its principal has grown to 75,000,000 lire.

The minister has authority to grant special aid to teachers of both sexes who are in need on account of illness or domestic misfortunes; also to bestow premiums of money or honors upon those who distinguish themselves in the performance of their duty.

He is also empowered to assist all corporations or associations who promote night and holiday schools, circulating school libraries, and instruction in manual training.

OFFICERS ACTING UNDER THE MINISTER OF EDUCATION.

The "prefetto" (executive officer of the national Government in the provinces) is the general supervisor over all the schools of a province. He presides over the meetings of the provincial school council.

The "provveditore agli studi" is the immediate superintendent of the primary public schools of both grades. He is present at and may take part in the examination of pupils for diplomas, and presides over the provincial school council in absence of the prefect.

The "ispettori" (inspectors) generally, and often by direct order of the minister of instruction, visit the schools of the Kingdom and report whether the rules and regulations of the national Government are observed with fidelity, whether the hygienic conditions of the school buildings are satisfactory, and what changes are required for their amelioration; they see to it that the programme of instruction of the minister of public instruction is faithfully carried out. The "ispettitrici" (lady inspectors), chosen for their knowledge of women's work, are employed to visit and preside over the schools for the manual training of women.

HYGIENIC CONDITION OF THE SCHOOL BUILDINGS.

The condition of the schools even so late as 1897 was so deplorable that the minister of education issued an order, of which the following is a translation:

ROME, *January 23, 1898.*

The reports of the school inspectors show that in the most of the communes the primary schools [school buildings, of course] are deficient in room, ventilation, lighting, etc. * * * In some localities these inconveniences and lack of sanitary necessities are so great as not to be tolerated a moment longer.

There is no possible excuse for their existence. In those communes where indifference has so far prevailed as to locate schools in abandoned and unhealthy huts, in dark and cold chapels, in old stables, in damp cellars, in smoky kitchens, in attics, lofts, or granaries exposed to the weather, any further tolerance would be a crime, and the school councils or boards should without delay exercise their full authority to abate the nuisances and provide for appropriate localities and buildings.

As soon as proper buildings or rooms are provided where the greatest urgency exists, the officers who preside over primary instruction in the provinces or school districts shall procure all possible information regarding the other schools, and request the administrators of the communes to make such improvements as the hygienic condition of the same requires.

It is to be hoped that the communes thus solicited, with the good will of the teachers, school boards, and citizens in good standing, will not decline to execute the work already adjudged indispensable. Should they refuse, in disregard of those official recommendations, the prefect shall proceed to enforce the laws, either communal, provincial, or governmental, relating to hygiene and public sanitation.

For new constructions the technico-hygienic instructions of the circular of November 11, 1888, should be observed. For repairs and alterations, and where one building is changed for another, the regulations accompanying this circular shall be followed. * * *

Where complications arise in technical or administrative questions, the matter in question shall be referred to this department for advice and counsel. * * *

GALLO, *Minister.*

The regulations referred to in the order as accompanying it are as follows:

First. The building and every part of the same shall be absolutely dry. Humidity is easily detected by observing the damp spots on the walls or on the pavement of the floors. The floors of the room should not be on a level with the ground, and when possible a cellar should be constructed underneath.

Second. The buildings should be located as far as possible from contaminated streams, polluted lands, stagnant waters, collections of manure and offal, stables, markets, military barracks, noisy factories, and factories from which offensive odors or matter emanate.

Third. The ingress for male and female schools should be separate whenever possible, but, on no account, should school rooms or buildings be accessible by or through public offices or private dwellings.

Fourth. The access to the schoolrooms should not be directly from the outside; a vestibule should intervene to prevent sudden drafts of air of unequal temperature; and there should be corridors or rooms for the deposit of outer clothing, often wet, umbrellas, lunch baskets, overshoes, etc.

Fifth. The rooms should be rectangular in shape and allow each pupil 1 square meter of space.

Sixth. The height of the ceiling should be not less than 4½ meters [14¾ feet] for new buildings, and not less than 4 [13⅛ feet] in old ones, so as to allow 4 cubic meters of air space to each pupil.

The objections often made that in some regions the rigid climate during the cold season will not permit the proper heating of such large rooms can not be considered, from the fact that there are too many means for protection from the cold known to builders to hesitate a moment to secure to the occupants the necessary amount of air for the preservation of their health.

Seventh. The rooms should be thoroughly lighted, and care should be taken that the light be admitted through one side only of the rooms, the side which admits the rays on the left side of the pupils. The area of the windows should be at least one-eighth the surface of the floor in old buildings and not less than one-sixth in new ones. The windows should be so near each other that no cone can be formed by the shadow of the pilasters or intervening parts of wall upon a pupil. The windows should have sashes sliding up and down, and, whenever possible, they should be on the south side of the room.

Eighth. The size of the rooms should be such that no pupil is placed farther from the window than 6¼ meters.

Ninth. The floors should be on a perfectly horizontal plane, of compact material compactly applied, without grooves or interstices, so that it may be easily washed and scrubbed.

Tenth. All schools should be provided with water-closets exclusively for the use of the pupils, and in two sections, one for the males and one for the females.

Eleventh. Their exposure should be northward of and in continuance with the building, with anterooms to the closets, as far as possible from the schoolrooms, with no direct access from one to the other.

Twelfth. The water-closets, as well as their vestibules or anterooms, should be supplied liberally with light and air, to secure which the building containing them should be exterior to though connected with the school building.

Thirteenth. It is highly important to see to it that all pipes leading from the water-closets to the sewers be properly trapped.

Fourteenth. In localities where sewers can not be laid the best systems known to sanitary engineering for the removal of night soil should be adopted.

Fifteenth. No well or pump for drinking water should be located nearer than 10 meters to any sewer, tank, or cistern holding foul matter.

Sixteenth. Whenever in the opinion of the health officer the water of any well is of a quality that may induce disease, that well should be closed at once.

The MINISTER.

These regulations have been enforced with great vigor by such enlightened ministers of instruction as Guido Baccelli and Nasi, and have produced a substan-

tial improvement in the hygienic condition of all schools. The discreditable and unwholesome school buildings of old have disappeared, and new, cheery, healthful schools have taken their place.

Whenever and wherever the communes were too poor to make the improvements the National Government, most liberally, has gone to their assistance with loans or subsidies; under such wise policy of the Government the number of schools and the number of pupils have increased beyond precedent, as will be seen further on.

INFANT SCHOOLS, INFANT ASYLUMS, AND KINDERGARTENS.

These schools are established by the communes, by religious or lay corporations, by private associations, or by private individuals. The ministry of public instruction supervises them, and even assists them with subsidies whenever deserved. They are the first step in education, the prelude to formal schooling, so that the little pupil who has previously attended them will not start with amazement and fear when he enters the crowded rooms where teaching is systematic and discipline enforced. The Italians regard these infant schools with favor—witness the large number of them throughout the country.

At the end of the year 1898–99 there were in operation 3,205 of these schools, with an attendance of 346,837 pupils—176,545 males and 170,292 females—a gain over 1895–96 of 392 schools and 29,720 pupils. This remarkable gain could not be due to increase of population, which in Italy, in a period of three years, would scarcely be noticeable.

These asylums, however, are not all schools; a few of them are but waiting halls where children above 3 years of age are received and cared for during the hours their parents are at work for their daily bread.

The children are admitted free of charge, except in cases where the parents are known to be quite able to pay fees.

As to the method of instruction, 537 of these institutes follow Froebel's method, 134 Aporti's, and 2,534 a combination of the two.

Funds.—The funds for the support of these infant schools, etc., are derived from the State, the provinces, the communes, from private, lay, or religious corporations, individual subscriptions, gifts, bequests, etc.

The income from these sources last year amounted to 2,347,768 lire ($1,469,553), of which 6,870,306 lire ($1,374,061) were expended for support.

The average attendance is about 108 pupils to a school, and the annual expense to run the same about 2,491 lire ($490), or 19.81 lire ($3.98) for each individual pupil.

Charitable aid.—In order to secure the largest attendance in these schools a "patronage association" has been formed for the purpose of assisting the children whose parents are too poor to clothe them properly and supply them with books and food while at school.

Last year the contributions of this benevolent association were as follows:

Four hundred and twenty pupils were assisted with books, copy books, pencils, pens, paper.

One hundred and forty pupils received gratuitously 120 grams of bread each, daily, a soup of vegetables, rice or dumplings, and a glass of ordinary wine diluted with water, now and then even a piece of chicken or beef. The pupils eat their lunch at stated hours under the direct supervision of their teachers.

Sixty-five pupils received necessary articles of clothing.

One hundred and sixty pupils, shoes and stockings, made expressly.

The funds of this association are derived from the subscriptions of members, from private offerings, and from a small subsidy from the minister of public

instruction. The association, in order to further increase its funds, organizes fancy fairs, literary and musical entertainments, etc.

Out of the 8,260 communes, 2,051 have adopted these "scuole d'infanzia" (infant schools), or about 25 per cent of the whole, which is a large proportion when it is considered that in many of the communes the illiteracy previous to the unification and independence of the country in 1870 had reached 95 per cent.

The number of directors and teachers of these schools amounts to 7,370 (108 males, 7,262 females).

ELEMENTARY INSTRUCTION.

Primary schools.—By "primary school" is meant a school having a five years' course of elementary studies.

The course is divided into two sections. The first, named "inferior," is of three years and is obligatory by law upon every child after becoming 6 years of age.

The second section is named "superior" and occupies two years. It is a progressive and complementary continuation of the former, but not compulsory.

The school programme of the two sections embraces the rudiments of the Italian tongue, practical arithmetic, rudiments of Italian history, geography, reading and writing, first principles of the rights and duties of a citizen, the metric system, and elementary gymnastics.

Since 1898–99 instruction in agriculture has been added to the course of the elementary schools of rural districts, to promote which, through the recommendation of the minister of instruction, many persons generously inclined, and even corporations, have offered small parcels of land for the practical instruction of pupils of these schools. These donations have become very important in the regular instruction in agriculture.

There were in 1898–99 45,745 schools of the "inferior" elementary grade and 6,003 of the "superior," or 51,748 in all, a gain over 1895–96 of 2,222 schools. The total force of teachers and assistants amounted to 52,688.

In 1871–72 the attendance at private primary schools averaged 6.43 per cent of that of public primary schools; in 1898–99 it had risen to 8.33 per cent.

Three years of schooling are compulsory by law. At the end of three years the pupil undergoes an examination, which, if passed successfully, entitles him or her to a certificate which relieves the holder from the obligation of continuing in the school, and admits him or her, if desired, to the superior section.

The pupils of the superior section become candidates for examination in two years more, and if successful are entitled to a certificate which admits them to higher schools, including the ginnasii, the technical schools, and the complementary school which prepares pupils for the normal school.

The percentage of successful pupils at the examinations of the first grade of the primary instruction, viz, the third year and end of the obligatory term, increased from 67 in 1891–92 to 73 in 1898–99.

The proportion as to sex of successful candidates at examination is largely in favor of the female.

In 1894–95 there were examined in the "primary inferior" 270,639 pupils, of whom 181,997 passed.

In 1898–99 there were examined 285,006 of the same class, of whom 201,924 passed successfully.

In 1894–95 there were examined in the superior section 19,048 pupils, of whom 13,736 passed.

In 1898–99 there were examined in the same section 28,284 pupils, of whom 21,883 passed successfully.

Teaching force of the primary schools.

Directors	588
Teachers (permanent)	50,751
Assistant teachers	1,937
Special teachers	302
Other teachers	738
Total	54,316

Number of teachers to each 1,000 inhabitants, 1.66.

In the year 1895–96 there were enrolled in these schools 2,379,349 pupils; in the year 1898–99 there were enrolled 2,444,288 pupils, showing a gain in the short period of three years of 68,839 pupils.

The number of primary schools and teachers in 1898–99, including both public and private, was as follows:

Schools	60,483
Teachers	62,638
Enrollment, both public and private	2,636,957

In 1895–96 the total number of schools was 59,526; of teachers, 62,077; of pupils enrolled, 2,589,423, showing a clear gain in three years of 957 schools, 561 teachers, and 45,534 pupils.

Evening and vacation schools.—To encourage further school attendance of pupils who have passed successfully the obligatory course of three years, and to provide for those who can no longer attend the day schools on account of being obliged to work for a living, evening and vacation schools have been organized, as provided for by law.

The number of these schools in 1898–99 was 4,245, viz, 2,750 evening and 1,495 vacation schools; in these 138,181 pupils were enrolled (105,856 males and 32,325 females); the teachers numbered 4,446.

It seems as if these schools did not meet with much favor from the people, for from 9,809, opened in 1871–72, they gradually dwindled to 4,245 in 1898–99, at which time the National Government withdrew the annual subsidy of 600,000 lire it had granted before.

EFFECT OF COMPULSORY EDUCATION ON ILLITERACY.

The Italians call an illiterate person an "analfabeta," i. e., one without alphabet, or one who does not know his alphabet.

In 1871 the "analfabeta" reached, on an average, 73 per cent. Since then no enumeration of illiterates has been made, but their approximate number may be determined by ascertaining the proportion of those who are unable to sign the marriage register. A similar course may be pursued with the annual conscripts of the army and navy.

From these sources are obtained the following proportions:

The percentage of those of both sexes who could not sign their names to the marriage register was 68 in 1871, and only 42 in 1898–99.

The percentage of conscripts who could not sign their names on the army roll was 57 in 1871, while it was only 34 in 1898–99.

The percentage of those who enlisted in the navy and could not sign their names on the navy roll was 66 in 1871 and only 50 in 1898–99.

The average of these three percentages gives 42.92 per cent as the illiteracy of 1898–99, against 73 in 1871.

As the law prescribes that no one can be a voter who can not write his name, it follows that the number of voters has increased in the proportion that illiteracy has decreased.

This illiteracy, however, is not equally distributed over the country; the percentage of illiteracy in the southern regions, and especially in the islands, as Sicily, Calabria, Sardinia, etc., is much higher than in the north. A great difference exists also between the rural and city districts. In Turin 2 per cent could not sign their names to the registers, in Milan 3, in Geneva 8, in Bologna 9, in Florence 11, in Rome 17, etc.

The military schools (regimental schools within the army in time of peace) have also greatly diminished illiteracy in the army, for while in 1894, among the soldiers who had ended their term of enlistment and returned to civil life, 40 per cent were still illiterate, only 26 per cent were illiterate among the same class in 1898–99—a good reduction in three years' time.

Dialects a cause of illiteracy.—Dialects are a great stumbling block in the way of teaching and learning in the elementary schools, and particularly in those located in rural districts. These dialects, "brogues," or "patois" not only often differ so radically from the Italian tongue as to seem foreign languages, but they differ from each other from province to province, and even from city to city. This confusion of tongues, for they are tongues rather than languages (if I may be permitted to thus disregard etymology), often compels the teacher to speak in school the dialect of the pupils in order to be understood, and the minister of public instruction finds it a hard task to select teachers for certain schools, for it would never do for a Tuscan to teach in a Neapolitan or Sicilian school nor a Roman in a Genoese, or vice versa. It is an embarrassment indeed that so many dialects, so different in character and expression, are spoken in the country.

"To take a child who knows none other than his vulgar local dialect, and in a few years lead him to express with sufficient clearness his own thoughts, either verbally or by writing, in a language that is more or less different from his own dialect, is a work of which few understand the importance and the difficulty."—(A school inspector.)

These dialects, the origin of which is buried in the darkness of past centuries, can not have even a common root, as they have often been changed and transformed and impregnated with the tongues of foreign foes who invaded and occupied for long periods districts, provinces, sections, or regions of the distracted country. Huns, Goths, Visigoths, Lombards, and similar barbarians from the North, and Gauls, Spaniards, Greeks, Turks, and Arabs, from the South. Moreover, their words and sounds forced into Italian ears were not from the pure languages of their respective countries, but from "patois," so that even a study of their etymology would be useless for deciphering them.

That these dialects are a cause of illiteracy may be proven by the fact that in those regions where the dialects spoken resemble least the Italian language, as in Naples, Sicily, and Calabria, the illiteracy is the greatest; so great, indeed, as to reach 85 per cent.

The use of these dialects is so ingrained in the Italian people that even at court, not many years ago, a dialect was spoken more resembling French than Italian. It is said of King Victor Emmanuel that, when in the heat of battle, to give more emphasis to his words of command, he spoke in Piedmontese; and among the better class of people it was considered an affectation to speak one's own tongue in its purity in society. This unfortunate custom is not totally eradicated even now, for in such large and advanced cities as Milan, Turin, Genoa, etc., dialects are heard in the shops, the cafés, and other public resorts, spoken by people pretentious for their lineage and their fortune.

COMPLEMENTARY SCHOOLS FOR GIRLS.

The object of these schools is to furnish to girls a higher degree of culture than they have heretofore obtained from the two sections of the primary schools, and

also to prepare them for entrance into the normal school, or fit them for some occupation such as that of bookkeeper or clerk.

The instruction lasts three years, and is complementary to the course of studies already followed in the superior section of the primary schools, there being added to the latter the elements of drawing, of foreign languages, pedagogy, hygiene, theoretical and practical gymnastics, etc.

At the end of the course they are examined for a certificate of competency to enter the normal school, or to occupy positions in the commercial or industrial world.

In 1881–82 there were but 77 of these schools in operation, with an attendance of 3,569 girls; in 1898–99 the number of these schools had risen to 220, with an attendance of 7,459 pupils.

NORMAL SCHOOLS.

These schools might be classified with professional schools, as they are for the purpose of preparing pupils for the pedagogical profession.

In 1898–99 there were in operation 38 normal schools for males and 118 for females, with an attendance of 1,454 males and 20,034 females.

The normal schools for males in Italy are decreasing rapidly. It is generally conceded that in the purely elementary schools the office of teacher is more adapted to women than to men.

The female normal schools, therefore, are flourishing greatly. Besides being institutes for the training of teachers, they are institutes of feminine culture, preparing girls for home and family duties, and also for some industrial pursuit, as the making of artificial flowers, gloves, hats, dresses, etc. Instruction in hygiene and gymnastics (practical and theoretical) has lately been added.

It is also a noticeable fact that in a recent examination for teachers' diplomas 79 per cent of the females succeeded, while only 66 per cent of the males were found competent.

Number of normal schools and students in 1871–72 and 1898–99.

Years.	Number of schools.	Students.			Per cent of—	
		Males.	Females.	Total.	Males.	Females.
1871-72	115	1,631	4,499	6,130	27	73
1898-99	150	1,454	20,034	21,488	7	93

COST OF MAINTENANCE OF THE PUBLIC PRIMARY AND NORMAL SCHOOLS.

Expenses of the communes.—The communes are required by law to maintain elementary schools in a certain proportion to the population. They must provide for the construction or renting of school buildings, furnish the same with all the necessary articles of furniture, not neglecting those necessary for the practice of gymnastics, and pay all the "personnel" connected with them, including directors, teachers, ushers, servants, etc.

The minimum salary for teachers is fixed by law, and for that purpose the schools are divided into two classes, viz, urban and rural. These again are divided into three classes, according to the population and the financial condition of the communes.

The salaries of teachers in cities varies from 1,000 to 1,320 lire a year for male schools and from 800 to 1,056 for female schools of the superior grade, and from 900 to 1,000 lire for male and 720 to 800 lire for female schools of the inferior grade.

The salaries of teachers in rural schools are lower, viz, 800 to 900 lire for the

male and 640 to 720 for the female schools of the superior grade, and 700 to 800 lire for the male and 560 to 640 for the female schools of the inferior grade.

These salaries, however, are increased 10 per cent for every six years of continuous service, but only for four consecutive periods.

Besides these expenses for the obligatory term, the communes contribute largely to the maintenance of the infant schools, infant asylums, and kindergartens.

In the aggregate the communes in 1898–99 expended the following sums for elementary, infant, evening, and vacation schools:

	Lire.
Ordinary obligatory expenses:	
Salary of teachers	44,467,713
Salary for service	2,731,728
Rent, furniture, lighting, heating, and cleaning	5,785,051
Gymnastic instruction	148,076
Annual contribution to teachers' pension fund	2,935,130
Total	56,067,698
Extraordinary obligatory expenses:	
Construction and adaptation of school buildings	5,244,917
Furniture, etc	542,734
Gymnastic apparatus	28,201
Total	5,815,852
Voluntary expenses:	
Infant schools, kindergartens, etc	1,637,920
Evening and holiday schools	656,379
Books, paper, and pens for indigent pupils	946,803
Extras	1,178,314
Total	4,419,416
Grand total	66,302,966

According to the above the annual cost of instruction for each pupil in the obligatory primary schools would be 26.21 lire, or 2.09 lire (about 42 cents) for each inhabitant.

To the above should be added the contribution of the provinces, which in 1898–99 was 642,757 lire, and that of the National Government, which was 7,432,906 lire. The total expense of the Kingdom, therefore, for public elementary instruction, independent of private schools, in 1898–99 was 74,398,629 lire, while in 1873 the total expense was 29,039,381 lire. In other words the expenditures for public education were nearly trebled in twenty-five years.

It is, however, estimated that the total annual expense for culture in the Kingdom, combining that of the communes, the provinces, and the states, is about 115,000,000 lire. This is independent of private instruction, which is very prevalent in Italy, on account of an aristocratic love of segregation and the antipathy of the church for the state.

THE TEACHERS' PENSION FUND.

This fund has been so ably described by Prof. Alexander Oldrini in his valuable contribution to the Report of the Commissioner of Education for 1898–99 (p. 846), that I deem it unnecessary to treat of it here. I must state, however, that it has met with a success beyond the most sanguine hopes of its founders. From year to year the fund has gone on steadily increasing, until from a deposit of 1,606,384 lire in 1879 it has reached the remarkable sum of 75,774,196 lire in 1899.

This fund has been formed by the obligatory contribution by the communes of a sum equal to 5 per cent of the total amount paid the teachers, the 4 per cent paid by the teachers out of their salaries, and a Government contribution of 3,000,000 lire, paid in installments of 300,000 lire annually for ten years.

The number of communes, schools, and teachers contributing to the teachers' pension fund is as follows:

Year.	Number of communes—		Schools contributing.		Number of teachers contributing.	
	Obliged to contribute.	Not obliged to contribute.	Elementary schools.	Infant asylums and schools.	From the elementary schools.	From infant schools, etc.
1889	8,118	138	39,043	355	37,201	380
1898	8,142	120	40,871	399	40,249	495

Actual receipts and expenses during the year 1899:	Lire.
Receipts	6,608,546.74
Expenses	1,124,100.50
Balance deposited in bank	5,484,446.24

The teacher is entitled to a pension proportional to his salary and the length of time of his service. A pension equal to the full salary at the time of retirement is due to the teacher who has served continuously for twenty-five years or more. In case of death the widow, or the children, if orphans, are entitled to two-thirds of the pension awarded to the husband or father.

PHYSICAL EDUCATION—GYMNASTICS.

The history of Italy is full of surprises. While to-day England and the United States of America are looked upon as the exponents of the true system of physical training and challenge the world for supremacy in athletic games, the very games that they play had their origin in Italy as early even as the fifteenth century.

Mafeo Vegio in 1491 wrote: "The youth should be exercised in gymnastics especially, by means of games neither too light nor too hard, but above all not unworthy of a freeman."

Paolo Cortese, in his work De Cardinalatu (1510), treats of the exercise of the body in conformity with physiological requirements.

The game of "pallone," a ball inflated with compressed air, which was in vogue at that early period, is played even now in Italy; it may properly be called the Italian national game. It is a game requiring, however, so much dexterity and physical effort that it is played only by professionals.

Scaino in 1555 described a tournament of "palla a maglio" (tennis) in the arena of Padua, at which all the magnates, professors, and scientists of the city were present and speeches were made demonstrating the healthfulness of the game.

Bardi in 1573 described a game of "calcio" (football), at which were present the dukes and princes of Medici, the dukes Gonzaga of Mantua, and all the nobles in Florence, whether native or foreign. Croquet, golf, and quoits were at that time common games, not only in Florence, but throughout Italy.

In 1688 a printing house in Florence published the rules of football, with illustrations, a work dedicated to their highnesses, Ferdinand, prince of Tuscany, and Violante Beatrice of Bavaria.

But Italy had allowed gymnastic games to fall into disuse, and it is only since her unification and independence, proclaimed in 1870, that gymnastics have been revived and placed in the curriculum of all schools except universities. Still,

gymnastics in Italy even now are not taken so seriously or cultivated with the same intensity as in England and the United States. But few professionals are engaged to give practical instruction in gymnastics in the schools, and only a few gymnastic halls are provided for, and those are located principally in the large cities. An error has also been made in adopting the German method, which is peculiarly military, instead of the Swedish, which is in conformity with emotional and physiological requirements. In the normal schools gymnastics are taught with a view to prepare the coming teachers to instruct their pupils in the same when they enter upon active service; but as the pupils of the normal schools are mostly girls, and the instruction is more theoretical than practical, it may be seen that the future of gymnastics in the elementary schools is not very promising in Italy.

In higher schools the number of instructors of gymnastics are as follows: In the technical schools, 276; in the technical institutes, 65; in naval schools, 28; in licei, 135; in ginnasii, 294.

In universities athletics are not highly considered, and one does not hear of "matches" or games between the students of different universities, which are common in England and the United States. Still there is the gymnasium of Turin, which is considered the best equipped and the handsomest in Europe. The Alpine Gymnastic Club, which is not inferior to any club of the same class, has many members, is very rich, and issues important publications. The boat clubs of Turin, Milan, Piacenza, Venice, Rome, Pavia, and Genoa are well known, but only seldom have they had organized races. Lately cycling clubs have been formed.

In late years, however, the Italians seem to have awakened from their lethargy, and organized conventions for the purpose of discussing the methods of gymnastics best adapted to the young and the best manner of teaching them in the schools.

MANUAL TRAINING.

This class of instruction, except in infant schools or kindergartens, has not found much favor with teachers, though insisted upon by various ministers of public instruction.

Many deem it absolutely objectionable on account of its tendency to distract the young pupils from their regular course of studies. It is, however, taught with earnestness in the complementary course and normal courses for female teachers. Except for the amusement of very young children, teachers do not think much of cutting paper or pasteboard in geometrical figures, braiding straw, or making mud pies in imitation of some animal, etc., while they take great interest in learning and teaching the rudiments of agriculture, domestic economy, female industries, drawing, etc., as will be shown farther on.

AGRICULTURAL SCHOOLS.

The coming into office of Dr. Guido Baccelli as minister of education infused new life into agricultural instruction. It was through his official recommendations that thousands of landed proprietors volunteered to give gratis small parcels of land ("campicelli," so called on account of their small size) for practical instruction in the elements of agriculture. It was through him that this instruction became obligatory in all primary schools, and especially in the normal schools. To fit the public teachers to instruct the pupils in this new study, lecturers versed in the theory and practice of farming and horticulture were sent around by the communes and school boards to instruct the teachers.

These efforts were received with enthusiasm by the people, especially of the rural districts, who now in their turn proceeded to assist to the extent of their ability.

The results of the united efforts of government, school authorities, teachers, and people are shown in the following statistics:

There were 238 lecturers in 1899, who delivered 1,802 lectures, attended by 15,000 teachers, principally of the rural schools.

Among the lecturers were the most noted agronomists, professors of universities and technical institutes, directors of special and practical schools of agriculture, engineers, etc. To these add those teachers who, having been born in the country and raised as farmers, need no instruction, and the new teachers that graduate annually from the normal schools, and it will be seen that the number of teachers competent to teach the rudiments of agriculture has become very large, with the prospect of larger increase.

The curriculum in the elementary schools was limited to the following subjects:

1. Manure and use of chemical fertilizers.
2. Functions of leguminous plants in the rotation of crops.
3. Tilling of the soil; farm tools and machines.
4. Differences occasioned by meteorological conditions.
5. Importance attached to the selection of seeds.
6. Diseases of plants, their treatment and eradication.

The programme of the normal schools in this branch of instruction was more extensive, and was as follows:

1. Arable and nonarable soil; subsoil.
2. Irrigation and drainage.
3. The object of tilling lands; common method and by machine.
4. Construction of stables.
5. Preparation of manure and chemical fertilizers.
6. Instruction on the cultivation of wheat, corn, oats, rye, barley, etc.
7. Horticulture and gardening.
8. Raising textile plants (hemp, flax, cotton, etc.); dyeing plants (madder, reseda, saffron); oleiferous plants (sesame, ricinus communis); aromatic plants (anise, hops).
9. Culture of meadows.
10. Cultivation of fruit-bearing plants; their diseases; rules for the preservation of dry and fresh fruits; preserves.
11. Viticulture; selection of soils for planting vineyards; species of vines; propagation of the same; diseases and their remedies.
12. Wine making; wine receptacles, barrels; their defects; vitiations of wine and their remedies, etc.
13. Culture of olive trees; gathering of olives; extraction of the oil and its preservation.
14. Culture of mulberry trees for raising silkworms; varieties preferred, drafting, etc.
15. Raising silkworms; their propagation; diseases they are subject to.
16. Bees and apiaries; production of honey and wax, etc.
17. Animals for work, for butchering; milk and its products; farmyard animals, especially poultry, etc.
18. Elements of rural hygiene; the atmosphere, water, food, clothing; habitations; malaria; domestic toxicology, utensils as a source of poisoning; drinks, condiments, coloring materials, etc.
19. Animals useful and noxious to agriculture.
20. Bookkeeping, etc.

The rural teacher must take his pupils to the small field assigned to the school and there demonstrate practically what he has taught in school. If he is not sat-

isfied with his success on the small field, he is to take his pupils to some large farm near by known to be advanced in the practice of farming.

Female pupils are admitted to this practical instruction the same as the males, and the Government especially recommends female teachers to teach their girl pupils to become useful colaborers of the farmer, particularly in all that pertains to housekeeping, the preservation of home goods and wares, the industries of the field, the custody of cattle, the garden, and the orchard.

Fields for practical instruction.—The small parcels of land donated by the people for the purpose of enabling teachers of the primary courses to give their pupils some practical ideas of agriculture in 1899 numbered 4,029, of which 2,475 were well equipped and in full operation. No less than 251,488 pupils (200,662 males and about 50,000 females) attended these instructive exercises in the field. The first four months of 1900 the donations of lots were so numerous that it was estimated that the number of "campicelli" would reach 5,000 during the year. The value of these parcels of land is estimated at 1,000,000 lire. This success, due to the suggestion of Minister Baccelli and to the good will of the people, did not involve the Government in one dollar of expense.

Comparing the above statistics with those given by Professor Oldrini in the article referred to above, it can not but be realized that the diffusion of agricultural instruction in Italy in the course of three years has been unprecedented.

Besides the above general elementary instruction in agriculture there are specific agricultural schools, which are classified into "special" and "practical." Under special are the following:

	Schools.	Teachers.	Pupils.
Vine culture and wine making	5	52	370
Olive culture and olive-oil making	1	3	8
Pomology and horticulture	1	8	31
Cattle and cheese making	1	7	48
Total of special	8	70	457
Practical	26	112	1,085
Experimental Agrarian Institute of Perugia	1	20	59
Grand total of agricultural schools	35	202	1,601

"PROFESSIONAL" SCHOOLS.

Under this term, as used in Italy and other European countries, are included schools for instruction in certain trades, industries, and occupations.

These schools are under the charge of the minister of agriculture and commerce, and are supported by the united contributions of the State, the provinces, the communes, chamber of commerce, and association of mechanics.

There are schools of arts and trades in 58 cities. In these are taught the elements of science and technics applied to the trades of masons, blacksmiths, carpenters, builders, gilders, wood carvers, shoemakers, printers, hatters, stonecutters, jewelers, etc. Viniculturists, pomologists, horticulturists, etc., have already been referred to.

Lower commercial schools, 12 in number, are for the purpose of preparing pupils to become commercial clerks, small traders, and for subordinate positions in the railway and telegraph services. In some of these schools foreign languages are taught and pupils prepared to enter the superior schools of commerce.

Schools of art applied to industry, of which there are 103, furnish practical instruction in the trades of blacksmithing, carpentering, stonecutting, wood carving, furniture making, lace making, building (masons), painting on ceramics, etc.

Besides the above there are 15 "professional" and commercial schools distributed in various cities. In these girls are instructed in dressmaking, embroidering, sewing, and in millinery, artificial-flower making, washing and ironing, lace making, mending, etc., also to become clerks, accountants, teachers in designs for embroidering, in ceramic decoration, and in miniature painting, etc.

There were 32,000 pupils in these schools in 1899.

TECHNICAL SCHOOLS.

Professor Saverio de Dominicis, in his Annata Pedagogica (1900), has classified agricultural schools, "professional" schools, and technical schools proper as "technical schools," and has therefore reported 280 such schools in the Kingdom, with an attendance of 37,733 pupils. Adding to these the communal and the private schools of that class the total number of technical schools, according to Dominicis, would be 483, with an attendance of 49,306 pupils, a gain of 96 such schools since 1895-96.

I have, however, kept the technical schools proper separate in this report for better illustration.

Pupils in the State technical institutes, 1899–1900.

Course common to all	3,221
Physico-mathematical	1,392
Commerce and accounts	2,337
Surveying	1,036
Agriculture	25
Industry	192
Aggregates:	
Admitted pupils	8,213
Free pupils	228
Pupils in evening schools (free)	1,851
Total in State technical institutes	10,292

Adding to these 1,600 pupils in private technical institutes, the grand total of all pupils in technical institutes is 11,892, a gain of 2 schools and 2,485 pupils over the year 1895–96.

NAUTICAL INSTITUTES.

Number of admissions to the various sections of nautical institutes.

Scholastic year.	Sea captains.	Naval constructors.	Machinists.	Preparatory course.	Free attendants.	Total.
1896-97	201	38	302	322	55	918
1899-1900	305	44	349	405	63	1,219

A gain of 301 alumni in three years.

Number of pupils in both Government and private nautical institutes.

Sections.	Governmental.		Private.		Total.
	Pupils.	Free hearers.	Pupils.	Free hearers.	
Sea captains	385		15		380
Naval constructors	44				44
Naval machinists	342				342
Preparatory course		405		18	423
Free attendants		63		1	64
Total	751	468	15	19	1,253

	Males.	Females.
Summary of all Government technical schools	23,970	2,914
Summary of all private technical schools	10,030	985
Total	34,000	3,900

Making a grand total of 37,900. There was an increase of 1,844 male and 323 female pupils over the attendance in 1898–99.

Apart from their physico-mathematical features the technical institutes are really "professional" schools, excepting those of a manual character. In the special sections of field surveying, agriculture, commerce and accounts, and industry, the technical institutes confer diplomas according to the course pursued.

The nautical institutes confer diplomas of captain for the high seas, seacoast captain, naval constructor, and machinist.

SECONDARY CLASSICAL SCHOOLS (GINNASII AND LICEI).

The "ginnasio" is not a hall for gymnastic instruction and practice, but a school corresponding to a "college" in England and the United States.

The ginnasio has a five years' course, divided in two sections. The first, or "inferior," covers three years, the curriculum of studies including the Italian language and literature, Latin, history, geography, arithmetic, and gymnastics. The second, or "superior" section, occupies two years; the curriculum continues the above studies and adds Greek, French, and mathematics. Then follows the "liceo" with a two years' course, having a curriculum which completes the gymnasial instruction, and adds German or French, philosophy, physics, and natural history.

This is the routine of studies to be pursued in order to prepare for admission to the university; in the aggregate it embraces a five years' elementary course, a five years' gymnasium course, and a two years' lyceum course—in all twelve years of continued study before a pupil becomes qualified to enter a university; this for every student in the whole Kingdom.

In 1900–1901 there were 269 "ginnasii governativi," so called, with an attendance of 31,668 males and 1,178 females, a total of 32,846. In the same year there were 150 "licei governativi," so called, with an attendance of 12,983 males and 287 females, a total of 13,270.

The above statistics of gymnasiums and lyceums for 1900–1901 are incomplete. The latest figures which give the whole attendance are those of 1895–96, and are as follows:

Total gymnasiums in the Kingdom, 708 in 1895–96, divided into governativi 183, and nongovernativi 525, with an attendance of 59,778 students, 25,444 belonging to the first class and 34,334 to the second.

Total lyceums in the same year 332, governativi 116, nongovernativi 216, with

an attendance of 17,689 students, 10,945 of whom were governativi and 6,744 non-governativi.

The number of female students of the above increased from 1,126 in 1895–96 to 1,465 in 1900–1901.

UNIVERSITIES.

The term "university" is applied in Italy only to those schools of the highest grade in which the students are instructed in special branches for the profession of their choice, and after a four or five years' course, according to the requirements of the profession selected, they are prepared, graduate, and receive the diplomas of doctor of medicine, doctor of laws, etc.

There are in Italy 21 universities, quite uniformly distributed throughout the Kingdom, 4 of which are independent of Government control. The name and date of foundation of these universities are as follows:

	Year.		Year.
Bologna (about)	1200	Turin	1404
Padua	1222	Catania	1434
Macerata	1290	Parma	1512
Naples	1224	Urbino (free)	1564
Genoa	1243	Messina	1549
Perugia (free)	1276	Sassari	1677
Pavia (about)	1300	Cagliari	1626
Rome	1303	Modena	1678
Pisa	1338	Camerino (free)	1727
Siena	1321	Palermo	1805
Ferrara (free)	1391		

The total number of students admitted to these universities in 1900–1901 was 23,425, divided by faculties as follows:

Jurisprudence	6,791
Medicine and surgery	6,211
Mathematics only:	
For mathematicians	538
For engineering	1,071
Physics, mathematics, and sciences in general:	
Physics	144
Chemistry	280
Natural science	473
Engineering school of application	200
Letters and philosophy	1,144
Pharmacy	3,528
Notaries and solicitors	806
Obstetrics, for midwives	1,202
Veterinary	580
Agrarian	157
Total, 1900–1901	23,125
Total, 1899–1900	22,774

Besides the above, there are 65 female students receiving instruction in obstetrics for midwives at a special school in Venice, and 140 females in a similar school in Milan. This would make a total of 23,630 students in 1900–1901, as against 22,774 in 1899–1900, a gain of 856 in one year.

SUPERIOR INSTITUTES.

The schools known as "superior institutes" have the scholastic programme of universities. Though private, they are more or less under the direction of

the Government. They number 20, about uniformly distributed throughout the Kingdom.

The number of students admitted to these institutes in 1900–1901 was 2,621, classified by faculties as follows:

Medicine and surgery	261
Mathematics, physics, and natural sciences:	
Engineering	215
Physics	1
Chemistry	31
Natural sciences	27
School of application	1,079
Letters and philosophy	250
Pharmacy	44
Obstetrics for midwives	70
Veterinary	640
Total, 1900–1901	2,621
Total, 1899–1900	2,802
Loss	181

There are three university schools attached to lyceums, whose students are distributed among the different faculties as follows: Notaries, 31; pharmacists, 175; midwives, 37. Totals: 1900–1901, 259; 1899–1900, 270.

Grand total of students admitted to all the universities:

1900–1901	26,510
1899–1900	25,816
Gain in one year	694

Female students in universities in 1900–1901.

Admitted in jurisprudence	7
Admitted in medicine and surgery	29
Admitted in mathematics, physics, and natural sciences	32
Admitted in philosophy and letters	89
Admitted in pharmacy	11
Total	168
Total, 1895–96	132
Gain	36

The following is a summary of the "superior grade" of instruction in Italy, according to Professor Saverio de Dominicis, 1901:

First. Superior professional military institutes: Military academy, school of war, school of application of military sanitation, school of application of artillery and military engineering, school of infantry target shooting, central school of artillery target shooting, school for candidates for professors of fencing; these have a total of 1,155 military students.

Second. Superior professional civil institutes: Superior royal naval school of Genoa, with 131 students; superior commercial schools of Venice, Genoa, Bari, with an aggregate attendance of 301 students; superior schools of agriculture of Milan, Portici, and Perugia, with an aggregate number of 181 students; the forestry institute of Vallombrosa, with 48 students.

Third. The 21 universities, with 23,125 students.

Fourth. The superior university institutes, viz: Superior finishing school and school of social science at Florence; scientific academy, superior royal technical

institute, and veterinary school at Milan; school of application at Bologna; school of application and veterinary medicine at Naples; school of application and veterinary medicine at Turin; school of application at Rome; and superior normal school at Pisa; these have in all 2,640 students.

Fifth. University schools of Aguila, Bari, Catanzaro, with an aggregate of 229 students.

Sixth. Superior normal schools for women at Rome and Florence, to prepare women to become teachers of the highest grade ("professoresses" so called), with 280 students.

The above aggregate 26,022 students of university grade.

Professor Dominicis observes that it is evident that the attendance at the superior institutes of professional character is relatively small, while that at the universities and the institutes of university character exceeds the needs of the country.

This excess of university attendance, with a view to office seeking, the Government has attempted to reduce by rendering the curriculum and the examinations for university degrees more difficult, so as to turn the attention of students more to agriculture.

CONVITTI (BOARDING SCHOOLS) FOR GIRLS.

These are schools where girls receive instruction, board, and lodging. They are quite numerous and are largely patronized on account of their privacy and discipline, the students being scarcely ever out of the observation of the teachers. Even in their daily walk for exercise they are marshaled like soldiers under the guidance and supervision of special guardians. In olden times only a few of the young girls escaped from being forced into these institutions of restraint. Parents, and particularly women of fashion, found it very convenient to commit their girls to these institutes and thus be relieved of any responsibility, just about the age when girls become conscious of their own attractions and capable of asserting themselves. This was especially the case with all girls of good birth, under the illusion that they would issue therefrom thoroughly equipped morally, mentally, and practically for the "struggle for existence;" and it is even so now, for annually about 53,000 are educated in these institutes under the tuition of nuns, who, though well-intentioned, are, on account of their seclusion and vocation, least capable of imparting to their students that practical knowledge of the world which they lack themselves.

There are about 1,577 of these convitti, 760 of which are ecclesiastic, 262 part lay and part ecclesiastic, and only 555 subject to Governmental, provincial, or communal control: 479 are free for pupils, 656 receive pay in full, and 442 largely reduced pay.

Of 1,380 instructors 470 were laymen, the remaining 810 were either priests or nuns, largely nuns, however; of the directors of the same, males or females, nearly 1,000 were ecclesiastic and only 465 laymen.

CONVITTI FOR BOYS.

In 1900–1901 there were about 860 convitti for boys, with an attendance of 51,227. These were all private except 53, which were governmental, and the directors and teachers were about in the same proportion as to being civil or ecclesiastics as in the female convitti.

COLONIAL SCHOOLS.

According to the statistics of 1896–97 there were 52 royal schools in foreign countries, viz, 1 liceo-ginnasiale; 8 technical commercial schools, 2 of which had the ginnasio attached; 23 elementary schools for males and 18 for females; 4 pro-

fessional courses, and 11 kindergartens. These schools had an aggregate attendance of 8,682, at an expense to the Government of 990,000 lire.

Of equal importance, on account of the number of their pupils and the patriotic impulse that led to their organization, are the colonial schools established by Italian subjects abroad. These are all elementary schools, following the programme of instruction adopted for those of the same class in Italy, with the addition of instruction in the language, history, and geography of the country in which they are established. The expenses incurred in the maintenance of these schools are borne by the societies which founded them and by private contributions. There are 100 or more of them, with an attendance of 11,000 pupils, at a cost of 92,000 lire.

Of the colonial schools some of them are of very ancient date. They were first established in various cities of the east as a help to the work of evangelization; they have now extended to the several American republics. These schools are subsidized directly by the Government or through the "Societa Nazionale." There are 30 of these, with 5,926 pupils. The Government subsidy amounts to 51,000 lire.

DIPLOMATIC-COLONIAL SCHOOL.

The ministers of public instruction, of foreign affairs, of marine, and of agriculture, industry, and commerce have approved the internal regulations of the diplomatic-colonial school recently established by Minister Nasi. Besides the courses already pursued, viz, diplomatic and consular law, history of political and commercial treaties, tariff legislation compared, political and colonial geography, there will soon be added courses of diplomatic and consular practice and of naval regulations. As this school has only recently been opened, no statistics are available

SCHOOLS OF FINE ARTS.

Governmental, 13 schools, with 2,198 pupils; nongovernmental, 13 schools, with 1,688 pupils; total, 3,886.

INSTITUTES AND CONSERVATORIES OF MUSIC.

National, 6, with 875 pupils, viz, 555 males, 320 females.

Private, a large number, among which are 5 musical lyceums and 40 private and municipal conservatories; number of pupils unknown.

MINERALOGICAL AND MINING SCHOOLS.

Royal school of Caltanisetta, with 7 teachers and 20 pupils.

School for head miners and expert mineralogists at Inglesia, 7 teachers and 42 pupils.

SUPERIOR SCHOOLS OF DECORATIVE ART APPLIED TO INDUSTRY.

Location.	Number of schools.	Number of teachers.	Number of pupils.
Florence	1	7	165
Milan	1	6	330
Naples	1	7	114
Palermo	1	5	22
Rome	1	3	56
Venice	1	6	160
Total	6	34	847

SUPERIOR SPECIAL SCHOOLS.

Class of schools.	Location.	Professors.	Courses.	Attendants.	
				Students.	Hearers.
School of Social Science.	Florence	15	Social science	35	3
			Jurisprudence and for notaries.	41	4
Superior schools of commerce.	Bari	19	Preparatory	44	11
			Commercial	50	5
			Consular	3	.....
	Genoa	13	Commercial	42	7
			Class common to all courses	23	11
			Commercial	22	.....
	Venice	15	Economy, statistics, and law	8	.....
			For auditors and notaries	26	.....
			Foreign languages	26	1
			Consular	5	.....
			Consular, economics, and law	17	.....
Italian Industrial Museum.	Turin	15	Chemical industries	18	.....
			Mechanical industries	4	.....
			Superior, for designers	24	.....
			Superior, electro-technics for engineers.	83	.....
			For custom-house employees.	30	.....
Superior Naval School.	Genoa	17	For naval and mechanical engineers.	58	.....
			Naval discipline and hydrography.	1	.....
Superior schools of agriculture.	Milan	18	Agricultural sciences	41	14
	Portici	14	....do	48	.....
Forestry Institute	Vallombrosa	11	Forestry	48	.....
Total		137		748	65

Total number of schools, 9.

Special professional courses in the superior institutes.

Location.	Courses.	Students.
Bologna	3 years' course for civil engineers; 3 years' course for architects	114
Milan	3 years' preparatory course; 3 years' course for civil engineers; 3 years' course for industrial engineers; 3 years' course for architects; 4 years' course in normal natural sciences; 4 years' course in physics; 4 years' course in chemistry.	432
Naples	3 years' course for civil engineers; 3 years' course for architects	237
Rome	3 years' course for civil engineers; 3 years' course for architects; 2 years' course in scientific architecture for students of fine-arts school.	172
Turin	3 years' course for civil engineers; 3 years' course for industrial engineers; 3 years course for architects.	381
Naples	4 years' course in veterinary medicine	177
Milan	....do	102
Turin	....do	88
Florence	4 years' course in philosophy and letters; 4 years' course in physics and natural sciences; 6 years' course in medicine and surgery; 5 years' course in chemistry and pharmacy; 4 years course for diploma of pharmacy.	587
Milan	4 years' course in philosophy and letters; 4 years' course in modern languages.	114
Pisa	4 years' course in philosophy and philology; 4 years' course in natural and physical sciences.	89
Florence	3 years' course in foreign languages and literature; 2 years' course in history, geology, geography, pedagogy, and sciences.	127
Rome	2 years' course in foreign languages and literature; 2 years' course in history, geology, geography, pedagogy, and sciences.	98
Total		2,668

It is the prevailing opinion in Italy that the desire for classic and university instruction is excessive, that is, above the needs of the country, while agricultural and industrial instruction is neglected and needs all the encouragement that the Government and Parliament can give. Italy is par excellence an agricultural country; all her exports are produced in her fields, while the largest part of her

imports are manufactured products, and the balance of trade is consequently against her.

Prof. Carlo F. Ferraris of the University of Padua reproduces the statistics of attendance at the universities and the superior institutes of the Kingdom during the year 1900–1901, with a comparison with the number of those who attended in 1893–94, given by the Riforma Sociale. According to this authority the number of students and hearers (the last are allowed to attend lectures, though they are not inscribed on the rolls) who attended the courses of the universities and of the superior institutes, according to faculties, in the scholastic years 1893–94 and 1900–1901, is as follows:

Faculties.	1893–94.	1900–1901.
Jurisprudence (for graduation)	5,690	6,792
Notaries and attorneys	571	880
Medicine and surgery	6,521	6,480
Midwifery	1,608	1,538
Mathematical sciences:		
For graduation in mathematics	306	537
For engineering	1,426	1,285
Physical sciences	70	145
Chemical sciences, for graduation in general sciences	69	315
Natural sciences	226	498
Letters and philosophy	1,325	1,695
Chemistry and pharmacy	181	477
Engineering, civil, industrial, and architectural	1,346	1,188
Pharmacy	1,707	3,270
Veterinary medicine	536	1,220
Agricultural	228	419
Total	21,870	26,739

Increase, 5,131.

Professor Ferraris remarks that among the studies leading to the highest academical degree, viz, graduation, there was an increase of attendance in jurisprudence, pure mathematics, letters and philosophy, chemistry and pharmacy, veterinary medicine, and agricultural sciences, but a visible decrease in medicine and surgery. As to engineering sciences, civil engineering decreased conspicuously, while industrial engineering increased largely and architectural engineering remained stationary. Among those who attended for professional diplomas, the candidates for those of notary, attorney, and pharmacist increased in numbers, while those for the diploma of midwife were considerably less.

From the above and the comparative statistics of schools of lower grades given in this statement, it must be concluded that the movement toward a broader culture in Italy has in the last few years received a great impetus, and the hope of its continuance rests on the fact that the movement has been gradual with an uninterrupted progress.

PUBLIC LIBRARIES.

As to public libraries, there are no later statistics than these given by Professor Oldrini in his report already referred to, according to which there were 1,831 libraries in 1898, with 1,690,825 books and manuscripts, of which 12,711 were manuscripts.

PHILOLOGICAL CLUBS.

There are many institutions of learning in Italy organized by local societies, or associations of learned and professional men, the statistics of which are not obtainable or even collected. It is the same with some schools of trades and industries, as lithography, photography, etc., whose existence is scarcely known except by the persons directly connected with them. There are, however, two

educational agencies which, though private, are of national importance. These two are the "philological clubs" and the "Dante Alighieri Society."

The philological clubs, though independent of Government control, have attained in late years a high degree of influence in the field of higher education.

The professed scope of these institutions is the teaching and perfecting of the Italian tongue and the dissemination of the knowledge of foreign languages; but they go much farther, as will be seen by the published programmes of the courses of studies. These clubs are organized by the literary and social élite. They are institutions not only of learning, but of social intercourse of the highest order. The instruction is by professors of literature, science, and art of the highest standing.

The first organization of this character, the Philological Club of Turin, dates from the time when the unification and independence of the country was effected, namely, thirty years ago; now they are found in every principal city of the country, as Rome, Milan, Florence, etc.

To exhibit their scope and breadth, the programme of the Florence Philological Club, whose president is the distinguished "litterato" and publisher, Piero Barbera, is here appended as being typical of all.

PROGRAMME FOR 1891–92 OF THE FLORENCE PHILOLOGICAL CLUB.

First. Instruction in languages: Italian, French, English, German, and Spanish. Lessons in the evening for both sexes.

Second. Special course for ladies in the French, English, German, and Spanish languages during the day.

Third. Finishing courses of the French, English, and German languages and literatures.

Fourth. The Italian course, consisting especially of instruction in Italian phonetics (pronunciation and diction), reading aloud, explanations of subjects read, dictation, orthography, grammar, syntax, correction of written exercises, instruction in the literature and the history of the literature of the country, reading and commenting upon ancient and modern authors, translation exercises, and conversation.

Fifth. "Conversazioni" in the various languages taught in the institute, held on certain evenings of the week from January 1 to May 30.

Sixth. Instruction in drawing and in painting in water colors.

Seventh. Special courses of music for ladies, including singing; a complementary course on the piano. Day lessons.

Eighth. Esthetics and history of art, aided by visits to museums, galleries, and monuments, under the guidance and instruction of competent teachers.

Ninth. Course of stenography.

Tenth. A special course of the Italian language through the medium of French, English, and German.

Eleventh. Courses in other foreign languages and literatures may be given if requested and terms agreed on.

These clubs are generally domiciled in elegant buildings in the most convenient localities. They contain spacious and well lighted and aired reading rooms, furnished with all the important Italian and foreign journals, magazines, and reviews; also very extensive libraries of the noted authors of all countries, with a department of modern literature in the various languages.

The members are allowed to take books home under rules to insure their preservation and safety.

There are special rooms for reading and studying.

Visiting the rooms of the Philological Club of Milan, I was surprised to find in

one spacious reading room 57 daily political and commercial journals, 18 illustrated papers, 14 comic papers, 53 literary periodicals, 4 on geography and travels, 25 technical and scientific, 3 agricultural, 4 legal, 23 on economics and sociology, 4 on medicine, 6 sporting, and 10 miscellaneous; in all, 222 monthly, weekly, and daily publications.

For the convenience of the members there is a room where may be found postal cards, postage stamps, postal and telegraphic tariff, letter scale, telegraph blanks, telephone, etc.

These clubs are equipped with relation to the special needs of the cities where they are located. In Florence, for instance, a city where many thousands of foreign citizens are permanently located, and many thousands more come there for limited periods for the purpose of education, the club is furnished with halls for conversation and recreation. The associates and members may find rest from their studies by playing billiards, chess, dominos, or checkers, provided in the same building.

Scientific or literary lectures are delivered every Monday evening during winter and spring; concerts are also given from time to time for the benefit of the members and their families. Refreshment rooms are provided for the hungry and the thirsty. The rooms are opened from 10 a. m. to midnight.

Admission fee for permanent or active members, 5 lire ($1); monthly dues, 3.50 lire (70 cents); occasional members, nonactive, monthly, 4 lire (80 cents). Officers of the army and navy, and members of the families of active club members, are allowed a reduction.

The fees for special courses for the scholastic year are: Drawing and water-color painting, 50 lire ($10); Italian instruction to foreign ladies, 40 lire ($8); for all other courses, each, 30 lire ($6). Those who take more than one course pay only one-half for each course after the first.

Nonresidents and foreigners may be admitted as guests by request.

The officers are: One president, one vice-president, a secretary, treasurer, and librarian; there is also a council (executive committee) of 18 members; all serve gratuitously.

The Philological Club of Milan commenced in 1872 with 264 effective members; January 15, 1902, it had 1,306. On the 30th of September, 1901, after paying all expenses, it had a net balance in money of 58,045.72 lire; the value of its library and furniture was 21,268.79 lire, making a total valuation of 79,314.42 lire.

This is a remarkable showing for an educational club, and I am assured, by reliable persons, that the fortunes of the other philological clubs are in a no less, and in some—as that of Florence—in by far a more, flourishing condition.

In cities where large colonies of citizens reside for certain periods of time, special provision is made for them, as in Rome and Florence.

Extraordinary instruction.—This is temporary, as current political and economical conditions may require. Thus, when the Italians went to war with African nations, some of the philological clubs immediately established chairs of the Arabian tongue; and when the Italian Government sent a contingent to join other nations in forcing the Chinese to fulfill their international treaties, some of these clubs immediately established chairs of the Chinese language. The State could not provide for such emergencies, any more than it could provide all the assistance the Red Cross gives in labor and material.

THE "DANTE ALLIGHIERI."

Another popular instrumentality of learning of national import is the association named in commemoration of Dante Allighieri, the "divino poeta." As it may properly be said that Dante was the master, purifier, and teacher of the Italian idiom, so this association is for the maintenance and diffusion of the same

among the four or more millions of Italians who, through political or economic reasons, remain under the sway of foreign powers or have migrated to other lands to better their condition. Its object is:

First. To foster and diffuse the Italian language and culture in foreign localities containing numerous Italian residents, like Trieste, Malta, and part of the Tyrol, and in the numerous Italian colonies in other parts of the world.

Second. To oppose legitimate resistance to all attempts on the part of foreign states to suppress the Italian language and literature in the colonies or provinces under their dominion.

Third. To establish in the colonies and localities above mentioned Italian schools and libraries by means of local committees and home subsidies, and distribute free national books and publications, and encourage, by every possible means, a constant propaganda for enduring Italianism among the Italians outside of the political confines of the Kingdom.

The patriotic object of this association, organized in 1890, received at once the encomiums and the indorsement of all the most illustrious citizens, from the King and court down to the class of humbler ones who, though possessed of but limited means, could not refrain from joining in assisting the association with all the means in their power. Accordingly this association spread forthwith over the land and to foreign nations. Sixty committees are now organized within the mother country, and 22 out of it, to carry out the programme of the association. Its central committee is in Rome, and through its efforts several congresses have been held: three in Rome (1890, 1891, and 1895), one in Venice (1892), one in Florence (1893), one in Bari (1894), one in Bologna (1896), one in Milan (1897), one in Turin (1898), and one in Messina (1899), with great success, and with great increase of membership and sympathy from the people. Committees are at work in twenty foreign countries, especially in South America, Turkey, Brazil, Chile, Australia, Montevideo, Canada, New York, the Balkan States, Trent, Trieste, and Malta, where large numbers of Italians reside or sojourn.

Italy has great political interest in conserving the sentiment of patriotism among the Italians who are largely colonized all along the coast of the Adriatic, in the Balkans, in Turkey, Egypt, Tunis, and Tripoli. No Italian now, though a resident of foreign lands, need feel abandoned or forsaken, or that the sweet influences of his home do not hover over him in his farthest peregrinations.

The members pay an annual contribution of 6 lire ($1.20), and by paying 150 lire become perpetual members. The association has expended several hundred thousand dollars in establishing schools, supplying books, and in organizing new sister associations at home and abroad.

This popular movement, with its wonderful success without any material assistance from the National Government, betokens a hopeful future in the self-governing attribute of the Italian people.

SPECIAL SCHOOLS FOR ADULTS IN THE AGRICULTURAL DISTRICTS.

The great and difficult problem in the advancement of popular education in Italy has always related to the rural population, that is, the so-called "contadini" (farm hands, field hands), of whom there are about seven millions, or almost one-fourth of the whole population of the country. This class of people work for wages so meagre as to be only too often insufficient to keep a small family from starving. Yet their progenitors were contadini, the present generation is contadini, and the children and grandchildren of these are expected to be contadini. These poor creatures work as no slave ever worked; they have no time for thinking, have no ambition, and take no interest in anything except in what is confined within the narrow space they inhabit under the shadow of their church steeple.

It is among these that the highest degree of illiteracy has been found to exist. These people find no time for learning; nay, learning to them is harder than breaking stone, and considered by them of no utility whatever. Besides, and this is really the main point, they need the labor of their children as soon as these are able to handle a farm implement however small; hence the schools are shunned or avoided when possible in spite of the law requiring that every child from the age of 6 to 9 should be made to attend school, and holding the parents responsible. Those who fear to disregard the law, and consequently send their children to school, withdraw them as soon as they have completed the first elementary course of three years demanded by the law of the land. The parents prefer to have their children back to hoe, to drive cattle, or help in any way they can in tilling land or storing crops. Thus every child in a family becomes a coworker at a very tender age. To break up this custom and overcome the aversion to schooling manifested by these people the Government is all but powerless, its machinery being too cumbrous and too slow to effect the object desired.

The educated class of Italians realize this, and understanding how important it is to overcome this perilous sea of ignorance, and satisfied that the means of the Government are totally inadequate, they have organized popular societies for the instruction of adults among the contadini.

This class of people—peasants, countrymen, farm hands, laborers, etc.—has, however, in the last few years become a factor in the economics of the country. They have organized themselves into labor unions, and under the orders of their chiefs have made gigantic strikes at times when their labor was most needed, as harvesting time, compelling the Government to send an army of soldiers to mow and to reap, in order that the crops of grain might not be wasted and the people revolt afterwards for want of food. These movements have further demonstrated the necessity of educating that large class of the population so that it may not be too easily misled by selfish leaders and demagogues; hence the society bearing the title "Society for organizing schools for adults and for small industries in the country." This society was organized in Milan in 1893, but did not become a body with corporate powers till 1899.

Of this society Angelo Crespi, the doctor of laws, says:

This society is one of those institutions which express the modern idea of beneficent social activity independent of the too cumbrous and slow government machine, and though it is still in its embryo state and has but limited resources, still it may be compared with another most worthy institution, the Dante Alighieri. While the latter has for its object the welfare of Italians in foreign parts, the intellectual and moral support of those, young or old, whom want has driven to other countries, the former tends to bring together residents of the same locality and prepare them for that modern life that demands greater strength in the "struggle for existence," and so put an end to that state of things which makes many parts of Italy appear like wastes of ignorance and brutishness, suffering unheeded agonies as by a divine curse.

"No one before," says the secretary of the society, "had thought of taking the youth just at the moment in which he begins to realize himself, at the moment when he begins to appreciate the utility of anything and to recognize all the injury done to himself by remaining ignorant of that which his more careful school-fellows are acquiring, and even forgetting the little he has learned." Taken at that moment the youth readily acquiesces in anything suggested for his improvement, even that which he had before considerd as irksome. Offering him the means of instructing himself just at the moment when he most thirsts for knowledge, you gain, with little expense and trouble, an advantage in his favor that you never thought possible before. It is like casting an attractive bait at a fish which has hitherto escaped the net.

This society opened its first school in 1893, entirely supported by voluntary contributions, and its success became at once apparent. The object of the association

met with universal approval, and schools grew in number under its influence, in Milan and out of Milan, until 30 may now be counted in a flourishing condition, with an attendance of 1,600 pupils from 14 to 42 years of age, the largest portion of whom are from 14 to 18, the most propitious age for this moral life-saving effort.

The rules of these schools admit pupils from 12 years of age upward; they are divided in classes according to the degree of education they are found already to possess. There is also a preparatory course for those who have escaped from taking the compulsory three years' elementary course, and for those who are illiterate from other causes.

UNIVERSITY EXTENSION.

Following the example of Belgium, popular universities have been lately instituted in Italy. But it is yet too early to determine their degree of success or give an account of them. However, judging from personal observation, the instruction attempted does not seem as yet to fulfill the object of the movement; it is entirely on too high a plane for the class of people for whom it is intended. The free lectures, so far as the writer has heard, are above the comprehension of the audience, when it is considered that it is composed principally of mechanics, artisans, and laborers who never have had that preliminary training that leads to the comprehension and appreciation of lectures on high art, on the most subtle sciences, on the highest culture in belles-lettres, literature, philosophy, etc. The professors who were engaged to lecture seemed to have had their personal reputation for learning far more at heart than the interests of the people who went to hear them. That is a national failing of the learned in Italy, if it is not of the whole continent of Europe. Vanity may destroy the praiseworthy object of the association. Let us hope that they will soon see their error and correct it. The people need such popular instructors as Professor Tyndall, of England.

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II.—THE BACCELLI BILL FOR THE REFORM OF SUPERIOR EDUCATION IN ITALY.

PRECEDED BY A BRIEF ACCOUNT OF THE ORIGIN AND DEVELOPMENT OF THE ITALIAN UNIVERSITIES.

By Prof. ALEXANDER OLDRINI.

CONTENTS—I. Early education in Rome.—II. The Middle Ages and higher education.—III. Debates on the reform of superior education.—IV. Text of the Baccelli bill.

I. EARLY EDUCATION IN ROME.

The superior training that had reached its zenith in republican Rome in the teachings and writings of individual celebrities, was centralized in the first century of the Roman Empire in the rudimentary conception of the later "universitas studiorum," the forgotten traditions of which were developed during the

Middle Ages and in the modern high schools and universities of European countries. The statement that the universities were evolved directly through the intellectual efforts of medieval times, whether from Bologna or from Paris, would do violence to history and lead to a fallacious understanding of the sequence of human intellectual conquests. It would limit the field of investigation necessary even in a cursory survey of the history of Italian universities.[a] The gradual progress of Roman instruction to its highest position may be considered as including three distinct periods:

First. The private teaching of a primitive period in the early days of the city, which was restricted in a general way within the circle of the family ("suus cuique parens pro magistro"), while the plebeians scarcely frequented the "ludi litterarum" opened near the Forum. This was the period of the Saturnian verse, of the Etruscan fescennine verses, and of the burlesque "fabulæ Atellanæ."

Second. The period when instruction, amid the long struggles of the "Urbs" for political supremacy in Italy and over Europe, Asia, and Africa, becomes public, but still remains independent of the central power. This is the century of the splendor of Roman letters.

Third. That of state education under imperial Rome, when the cycle of higher studies, the curriculum, is complete in its classical structure, and such that, although modified or enlarged according to the genius, the character, and the aspirations of future nations, it will always remain the standard par excellence. This was the period of grammar, rhetoric, eloquence, philosophy, jurisprudence, medicine, and the natural and mathematical sciences.

This onward triumphal transformation of education, consistent and parallel with the historical evolution of the republican genius of Rome itself toward centralization of power in the Universal Empire ("regere imperio populos"), well deserves a concise analysis.

The school, as has been well said, reflects the image of the community which creates it. Roman instruction in the early centuries of the "Urbs" was exclusive, as would be logical in a stern aggressive community, unwilling to form alliances, "imperium cupientibus nihil medium inter summa et præcipitia." The state being all, no limit could be admitted to the parental authority, since it was understood in early Rome that only by obeying their father's will young Quirites might learn how to obey the state; and no doubt such authority in instruction must have proved absolute with the scions of patrician families.

While there is no written history, except in the form of annals, to prove definitely in what instruction consisted, many historians express the opinion that higher education was imparted from the close of the fifth century, in patrician families, in accordance with their means and position in the state. The instruction bore upon the science of war, of law, and of eloquence, the sons following their fathers in the battlefields, in the forum, and in the senate, there to acquire that practical training that could alone account for the progress of the early Romans in political culture. This progress permitted the gradual accession of persons issued from the people to the ranks of the nobility, to the direction of public affairs. Later on, when the necessity was felt of a still wider range in higher education, the senate, according to Cicero, used to order a number of young patricians to be sent every year to Etruria, there to study the science of religion, which was characteristically considered by the Romans as bearing on human as well as transcendental problems.

Religion, according to the Romans, was the science that assured that moral and intellectual power which opened the way to the highest offices in the state, and gave to the Pontifex his great authority in Roman society in regard to the inter-

[a] P. Rossi: Istruzione pubblica antica Roma (Siena University, 1891).

pretation of laws, of formulas, of civil procedure, of measures, of numbers, and in regard to the annual relation of public events.

After the ending of the third Punic war with the destruction of Carthage (146 B. C.) by Scipio, and after the destruction of Corinth by Mummius, new elements, such as Greek influences and customs, brought about a change in the destinies of Rome. The sixth century of the city is the period of the national unification of Italy, and of the replacing of the concept of the "Urbs" by the broader one of the Italian nation with Rome for its capital, ruling over partly conquered Europe, Asia, and Africa. Such an event prepared for the complete transformation of Roman society, altered the ancient rigidity of customs and family ties, and consequently the educational and political institutions.

The necessity was then felt of establishing permanent rules for the Latin language, "lingua urbana," now spreading to distant lands, to be used by other peoples, so that there was a great impulse toward the opening of schools of grammar, rhetoric, and philosophy; this was a step toward the passage and transformation from the first period, that of private and home tuition, to that of a public system. This was not done, however, without opposition from the old patrician element, represented by Cato, who might be considered as the highest moral incarnation of the old circumscribed Roman ideas as well as of Roman austerity, virtue, and national pride. He went so far in his bitterness toward the new ideas as to ask the senate to send back to Greece such scholars and thinkers as Carneades the academic, Diogenes the stoic, and Critolaus the peripatetic, on account of the philosophical influence their lessons exercised on the young Roman generation. All this was of no avail, however, as each rich family vied with the other to secure, by the payment of large salaries, the most learned Greeks, whether slaves or free, to teach their sons Hellenic philosophy, sciences, fine arts, and manners. Thus there came about the establishment in Rome of that universal and almost encyclopedic character of studies, which answered theoretically to the ideals of Greece, but was to remain a characteristic prerogative of the most eminent citizens of the Roman Republic.

The fall of Corinth was the sign for legions of vanquished Greeks to invade the country of the victor—philosophers, scientists, rhetoricians, artists. "Grecia capta ferum victorem cepit et artes intulit agresti Latio" (Horace). Both the aristocracy and the new popular party took up the new studies in earnest and followed their teachings. Interest, fashion, and pleasure on one side, the acquired wealth and the new enlarged political empire on the other, fostered their rapid development.

The "schola" on the Hellenic plan then first appeared in Rome, and a number of high schools were opened in a short time; but they were not considered sufficient, either in number or grade, so that students who wanted to rise to the standard of the new ideas and to be in accord with the international development of the republic, began to go abroad to complete their higher education. They went to Athens for literature and philosophy; to Rhodes, Mitylene, and Apollonia for rhetoric; to Alexandria for the highest scientific training. It is the century of Sylla and Augustus (78 B. C. to 14 A. D.), the second period of free Roman letters and of the perfection of the Latin language; the beginning of the era when the Roman genius developed all the power of its national originality, graced by the Greek influence; when numbers of renowned authors showed that vast erudition which constituted one of the characteristic qualities of Roman superior education. It is the period when higher education assumed regular divisions, and conquered its highest standing in Rome, its effects extending from Rome to the uttermost borders of the empire, to the most distant peoples, to apprise them of her powerful and intellectual civilization.

Higher education, acquired during that period, was in fact such a power in Rome that the destinies of the state appeared to depend upon it more than upon the force of arms and political authority, so that the state gradually assumed the rôle of a protector of education at first, then that of a regulator of it, with the result that, from an independent public status, the whole system became official and was subservient to political power, thus losing the incomparable benefit of that free expansion that self-supporting institutions and unfettered liberty of teaching and learning can assure to a progressive nation.

The personal influence of the emperors since Augustus, then representing the State in its highest capacity, was felt so deeply in the educational field that the most independent and keenest poet of imperial Rome wrote: "Et spes et ratio studiorum in Cæsare tantum" (Juvenal). They subsidized the professors of Rome, whether Greek or Latin; they provided for the instruction of the poorer classes, protecting and honoring equally both teachers and students.

Hadrian, a great scholar himself, is reported to have made the first step in the direction of encroaching on the freedom of public teaching by removing from their chairs those professors whom he had honored and enriched when he thought they had fallen from their high standing. He went further in the direction of imperial intervention by erecting a superb building for the debates and lectures of rhetoricians and poets, of professors and pupils alike, at the expense of the State. Hence the first Atheneum of Rome.

His successors extended their activities in the field of public education successively from the chairs at Rome to the high schools throughout the Empire by establishing chairs of rhetoric and philosophy "per omnes provincias," as decreed by Antoninus Pius. Marcus Aurelius raised the schools of Athens, then the most renowned, to the rank of true superior institutions, for the teaching of all philosophical doctrines of the period, the stoical, the epicurean, the platonic, and the peripatetic, while Alexander Severus provided by decree for the opening of special schools for the teaching of other sciences besides grammar and rhetoric, such as mechanics, architecture, medicine, and mathematics, and took a characteristic step in the direction of State authority over public education for the first time by granting, at the expense of the treasury of the State, sums of money to meritorious poor pupils that they might complete their higher studies.

All these still semiofficial high schools throughout the Empire, opened in even the most distant important centers of civilization, were not uniformly governed, nor with the same liberality as that of Autun, for instance, where Eumenes, the director, received no less than 600,000 sesterces a year salary, half of which sum was contributed by the State.

It was the Emperor Gratian who took up this subject of salaries in his reform "de medicis et professoribus," and Diocletian followed in his steps by fixing the amount of the monthly fees that each student was expected to present to his professors. The minimum was of 50 denarii[a] for the "magister litterarum" and the pedagogues; the maximum 200 for the grammarian and geometrician and 250 for the rhetorician and the sophist. To the salaries of the professors were to be added special privileges and liberal immunities from different taxes and obligations which were common to all classes of citizens; these were regulated in accordance with the importance of the town where the professor resided.

The professors of law alone were excluded from all such benefits, at least until the advent of Justinian, on the plea "that the science of law stood so high in its moral character that it would prove a degradation to put it under a money standard."

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[a] The denarius was a Roman silver coin equal to $0.157.

The onward march toward the final type of the State university was greatly accelerated by the constitution of Julian, which on the one side regularly devolved the appointment to the different chairs, and the removal of unworthy professors, upon the college of centurions, subject to the approval of the Emperor himself; while on the other side it subjected the students to special strict by-laws and regulations bearing on their duties and obligations toward the school, as well as toward the city where they studied, and toward the State.

The limit of the discipline and centralization of higher education was finally reached by the State in the year 425 of our era, when Theodosius I and Valentinian III thought of uniting all the special schools of learning, until then independent of each other, in one single body and under one roof, The Institute, or "Universitas Magistrorum et Scholarium." This institute was opened in Rome at the capitol and provided with State professors appointed for the culture of the liberal sciences, embracing the following faculties, letters, rhetoric, philosophy, and law, thus giving birth to the first and most ancient type known to history of the "universitas studiorum."

II. The Middle Ages and Higher Education.

In the great contest between the overwhelming materiality of paganism and the ardent spiritual tendency of the new Christianity, while the northern invaders were dismembering the Empire, the official system of Roman higher education was lost sight of. The exodus of the imperial authority from Rome to "Nova Roma," Byzantium (A. D. 330), hastened the final disorganization of the Roman world, and troubled days awaited Italy. However, amid the ruins of what had been the Roman educational system, toward the sixth century and the beginning of the seventh, in many parts of Italy the traditions and cult of Roman law and jurisprudence and of the liberal arts were still kept in great honor; this not as an exception among privileged classes, "but among all classes of citizens independently of the church at that period." It is stated that in the schools of Italy throughout the Middle Ages education was of a lay character. This was a unique example at a period when elsewhere in Europe theology absorbed most exclusively the attention of the scholar, who, as a rule, belonged to the clergy, while the laical elements of society, bent on conquest and other material pursuits, even if of noble descent or in a station of wealth and power, disdained the benefit of the very first elements of literary culture.[a]

Most fortunately for the renaissance of letters, arts, and sciences between the sixth and twelfth centuries, the Italian cities, as heirs and trustees of Roman civilization, preserved their Roman municipal arrangements and laws, making them acceptable to their semicivilized conquerors, notwithstanding foreign invasions and the continuous upturning of governments and change of rulers. Roman jurisprudence, together with grammar and rhetoric, continued to be cultivated under the Goths also in Rome and during the Byzantine domination in Ravenna. It seems a logical historical conclusion, therefore, that to such a classical superior training thus kept alive Italy owed her escape from total disappearance as a nation after the fall of the Western Empire, while that same training led to her intellectual and national resurrection later on, when better times and more settled conditions existed. Between the eleventh and twelfth centuries, or as soon as the dark ages came to an end and permitted a more civilized social intercourse among European nations, and when a new and powerful spirit of life, enhanced by the commercial activity of the free cities of Milan, Florence, Genoa, Pisa, Amalfi,

[a] William Giesebrecht, of Munich, was the first to point out the fact that literary education had a laical character in Italy at all times.

and Venice, had passed over the unfortunate peninsula, higher education was again revived in Italy. In the thirteenth century the intellect of the whole Latin race became embodied, as a beacon light to humanity, in the grand personality of Dante Alighieri, the universal scholar, "l'altissimo poeta."

Special schools, favored by the cities with all sorts of privileges, and admitting no administrative interference, reappeared where celebrated free scholars taught to free students their doctrine on Roman jurisprudence. The "Glossa," followed by the revival of letters, arts, and other sciences, gradually brought the schools to a standard which crystallized in the superior types of the Medical School of Salerno and of the universities of Bologna, Padua, Pavia, etc.; so that, in the opinion of historians and thinkers of all nations, the glories of the Renaissance in the fifteenth and sixteenth centuries are due to their influence. The Latin genius once more irradiated the path of humanity, and it was represented by such men as Toscanelli, Columbus, and the navigators; Galileo and the scientists; Michael Angelo, Raphael, and the artists; Petrarch and the poets.

The most celebrated mediæval university of Italy, that of Bologna, offered such a characteristic curriculum, from its first appearance as an independent center of higher instruction, that not only the Italian universities of the Middle Ages followed its lead, but its scientific and eclectic influence was also felt throughout learned Europe, and more, perhaps, than the universities of Paris, Montpellier, and Oxford (Berio). The free "Studio" of Bologna, which owed its first renown to the science and commentaries of Irnerius on the Exegesis of Law, was so rapidly brought by the pupils of this unique master (among whom were Bulgarus, Martinus, Jacopus, and Hugues) to such a degree of importance that in the twelfth century, according to the authority of Odofredus, it could boast of 10,000 students. At the request of the university, as early as the date of Roncaglia, Frederic I granted to all foreign pupils coming to Bologna the privilege and protection of the Autentica of "Habita" (1158), putting that body under a special jurisdiction, under which none could disturb them. This was the foundation of that special corporation which developed into the University of Bologna and led to the institution of the rectorate. The Autentica, as far as history can ascertain, is the first official document since the fall of Rome which, by its provisions regarding the "Universitas Scholarium," marks the return of the interposition of the State in matters of education.

In the University of Paris, where theology absorbed their attention, the professors denied to the pupils the right of participating in the government of the university. Bologna, being preeminently a university of law, letters, and arts, and later of medicine, was more faithful to the old Italian tradition of freedom of teaching and of learning. It granted from the earliest period the administration, and a large share of the legal jurisdiction, of the university to corporations made up of the students. The Government and the municipal authorities also granted numerous privileges to the students.

Next in order after that of Bologna, the University of Padua is the one that contributed the most to the increase of free higher culture in the last centuries of the Middle Ages; then followed the "Universitas Scholarium" of Pavia, and those of Siena, Pisa, Ferrara, Perugia, and Urbino. Unlike the alma mater Bologna, however, the University of Padua, and in general all the Italian universities, did not originate through an imperial charter or other government authority, nor did they develop under the French form of "universitas magistrorum," but were the outcome of free private schools which flourished in Italian cities during the eleventh and twelfth centuries, and of the accession of free pupils coming home from the Bologna University (Savigny).

One exception to the Italian tradition of freedom of teaching, of learning, and

of jurisdiction existed. This exception, the University of Naples, was due to the personal initiative of Frederic II, who, in his love for science, established a great "studio" for general and higher culture in the first part of the thirteenth century (1224). His purposes were both liberal and generous, since he had the most celebrated professors appointed, and the students were also granted many privileges, but he never allowed them to form a corporation; he denied them the right of election, the granting of degrees, and that autonomy and that freedom of curriculum which were enjoyed by all other Italian universities. As a result the University of Naples, notwithstanding the protection and the genius of its founder, notwithstanding the culture of its professors and the bright intelligence of the southern Italian population, never rose to the splendor and the influence of the other Italian universities, to which are due the marvels of the Renaissance and the habit of free criticism and free thought in the fields of philosophy, philology, and history.

The progress of the Italian universities, developed in the freedom of the mediæval republican municipalities, naturally met with the fate of higher education in imperial Rome; that is, it came to an end through the interference of the state when the Italian cities came under the rule of national and foreign princes. The theory of G. B. Vico, the creator of the philosophy of history, on the recurrence of the same human events under the same circumstances, was thus practically illustrated.

Under the conceptions of the functions of the State which prevailed between the fifteenth and sixteenth centuries the university ceased to be considered as a free and independent corporation, and the students ceased to enjoy exceptional conditions with regard to the body politic. By arrogating to themselves the protection at first, then the government of the university, the mediæval princes of the different Italian States, following in the steps of the Roman emperors, jeopardized by an undue interference the superior rights of science and learning, so that both professors and students became victims of tyrannical methods.

The process by which the Italian universities fell under the rule of the different princely Mæcenases [a] may thus be summed up: As centers of national culture they are seen to gradually lose their autonomy and individuality by being incorporated with other institutions depending upon the political power. The freedom of teaching, which could not be immediately abolished, was restricted within given limits. Not content with interfering in regard to the by-laws and regulations of the universities of their several principalities, the rulers went further and limited the number of such institutions. In each case the city where the prince and his government were established soon became the only object of favor as a center of scientific activity. These institutions were put under special supervision, however, so that higher instruction should become an ally of the state and be subordinated to the prince at all times.

Since then, and until recently, all power of initiative having been taken away, the universities existed in Italy only as official institutions. They were therefore unable to exert that powerful and popular influence on the nation's welfare which English and German universities exercise as centers of national free culture and education.

This was the condition of superior instruction and of the universities forty years ago in Italy, so that the institutions which had survived so many vicissitudes had become practically without life or usefulness at the commencement of the new régime in Italy.

[a] Pope Leo X of Rome, the Medicis of Florence, the Visconti of Milan, the Este of Modena, the Scaligeri of Verona, the Malatesta of the Marca, the Gonzaga of Mantua, etc.

III. Debates on the Reform of Superior Education.

The smoke of the battlefield of Solferino (June 1859) had hardly disappeared from the blue firmament of Lombardy when the question of popular education began to engage the attention of those who were striving for a free and united Italy. Owing to the condition of the masses, the result of centuries of denationalization and servitude of body and mind, no problem appeared more worthy of immediate study. A general law was voted at once (November 1859), the Casati law, which, although open to amendment, constituted what was justly termed "The educational code of modern Italy."

Soon afterwards (1862) the debates were opened, before the Chamber of Deputies and the Senate, on superior and higher education. They cover a long period of about thirty-five years. Between the Casati law and the latest bill of Minister Baccelli (1898) there is a long list of parliamentary reports on various bills, prepared by most competent commissions and scholars, which give a summary of these debates regarding the historical character and the status of university and higher education. The object of these bills is to infuse new life into the academic institutions by means of modern pedagogical methods; to raise them to the point of leading the freed nation in the path of progress, abreast with modern nations.

The learned debaters appear to have been remarkably unanimous as to views and purposes, although coming from different sections and schools. They showed that intellectual power can enable a minority of men to lead a nation to higher educational destinies, and raise human thoughts to the conception of those laws that gradually solve social problems as well as nature's mysteries.

However, the question as to the most appropriate methods and means for Italy to reach that end found the debaters, whether in Parliament or outside in public press discussion and polemics, divided among themselves into two main groups, one bent on freeing the universities of the country from state control so far as securing for them absolute didactic, disciplinary, and financial autonomy; the other affirmed the necessity of keeping them under governmental control, temporarily at least. The one urged the reduction of their number (21) as in excess of the present needs, the other upheld the historical rights and usefulness of each in the center where located.

There was also lack of harmony in regard to the curriculum, viz: Whether it was advisable to stand by the ancient Italian classical standard, or readjust it fundamentally on the pattern of modern foreign universities, the object being to secure a real and social evolution in Italy through specialization of studies.

The by-laws, attendance, classical books, the progress toward efficient professorship, the college "laurea" and diplomas, were henceforth to be subservient to the state examinations with regard to the real efficiency and qualifications of students who will be called upon to exert high and sometimes unrestricted authority in the practice of their legal or scientific profession. There were many other secondary problems connected with superior education which constituted the platform of the reform movements under discussion.

Since the opening of the debate on superior education Dr. Guido Baccelli, the eminent scientist and statesman, has been conspicuous in the Italian Parliament as a standard bearer of reform. As the Baccelli bill and the three reports of Cremona, Berio, and Fusinato seem to bear upon all features of the debated subject, a résumé of these is here given.

Superior education, as Dr. Baccelli [a] eloquently affirmed, is a weapon of precision in the competition among nations; its machinery must unceasingly undergo modifications and improvements. Liberty is its true basis—that is, freedom of

[a] Dr. Baccelli was minister of public instruction in 1898.

teaching and of studying, which was the foremost cause of the greatness of the ancient Italian universities. "I mean [said Dr. Baccelli] to secure for modern higher education in Italy liberty and academic autonomy considered in its threefold aspect—the didactic, the financial, and the disciplinary."

Science in Italy, which originates almost entirely in the universities, has showed signs of a steady progress within the last few decades notwithstanding the strained financial conditions of Italy; it has indeed become a redeeming national directive force, from the fact that there has been an admirable work, not only of assimilation of the scientific patrimony of other nations which were once tributary to Italian genius, but also of contribution to the development and progress of science at large. This is observable, namely, with regard to jurisprudence and the application of its highest principles, with the result that Italy, applying the humane teaching of Cesare Beccaria, the eminent author of the treatise "Dei delittie delle pene," has alone, among the great nations of the world, abolished capital punishment. The same is also witnessed in the new realm of electricity and in the biological sciences, where the most successful initiative has been taken. Progress in that direction has not, however, brought forth as a logical consequence the reform of higher Italian education so that it will compare favorably with the standard of other nations.

The student does not seem to benefit by the high standard of superior instruction as it is now imparted by celebrated scientific men in most of the Italian universities; not that the Italian youth of to-day feels less like cultivating special and higher studies, but that there are material difficulties which stand in the way of greater results. This is in part because the present Italian scholastic curriculum and by-laws do not foster the earnest activity of professors and students alike, but they even prevent it by their excessive and narrow uniformity. There is, above all, lack of liberty in the choice of subjects of study. Thus handicapped at the start, the student aims more to conquer the obstacle of obligatory examinations, which lead to a profession, rather than to seek the loftier ideal of high culture for its own sake; the professor, on the other hand, moves in a stagnant official atmosphere, which is destructive of the strongest energies. Hence the necessity of a law whose object shall be to rehabilitate the university, to permanently base it on those fundamental principles of free research which will tend toward the development of the special higher aptitudes of youth.

Speaking of the much debated point that in Italy superior education needs more centralization, that twenty-one universities represent a number far in excess of the present potentiality of the new nation, inasmuch as some of the minor ones seem hardly worthy of the sacrifices made annually to keep them alive, Dr. Baccelli expressed himself as against the suppression of the latter. The very uncertainty of late in regard to their suppression or transformation is given by him as a cause of their shortcomings in the exercise of their didactic capacity, and of the check to the enhancement of their scientific importance. Voicing the opinion of many a learned scholar, moreover, he calls to mind that old Italian institutes of superior culture, including some under discussion, have educated for centuries superior minds and most able exponents in the realm of science, thus offering to history the proof of having been worthy centers of intellectual life, of general culture, and of patriotism, when intellectual and national life in Italy seemed otherwise extinct. Thus to destroy one of these sanctuaries of scientific and philosophical activity for the sake of economy would simply prove sacrilegious. The wisest solution offered is to let each university find, in free competition with others, that energy which may secure for it an honorable future in the service of the community and of science; nay, to raise it from its present state to higher ideals. If, after such an attempt, it should be proved that the universities

can not be brought to a new vitality, owing to their location in cities where an active public life is no longer found; if also the individuality of their ancient peculiar political history is no longer observable, then only should the patrimony of bygone institutions be applied to new university corporations; then might this patrimony be used for educational necessities in the centers where the ancient universities exercised a secular authority. Thus one would apply to them the scientific theory of the spontaneous metamorphosis of beings destitute of vitality, in conjunction with the wise law of securing from their elements the nutrition of new bodies.

It is obvious that the above abnormal condition of superior education in Italy has been conducive to a certain distrust since the opening of the debate, so that the authority of the universities has been diminished and their importance in the eyes of the public modified; for the people were not cognizant of the many reasons which caused these very debates on the reform of superior education to appear to the legislators as a guaranty of higher destinies for the newly reconstituted nation. It is certain also that such a state of distrust and such a lack of discipline in the Italian universities has affected the intellectual life of the students. This has led of late to periodical disturbances and actual strikes, in several instances causing the clôture of several universities through state intervention. To obviate such conditions Dr. Baccelli suggests, as an outcome of his long experience, that the remedy called for immediately, and the only effective one, is freedom, and he has formulated his bill upon such a fundamental conception. "I ask the Parliament [said he] to vote without hesitation for the complete academic freedom of our universities under the enlightened supervision of the state. Freedom of teaching and of learning, which vanished with the departed greatness of Italy, must again become the 'jus' of our universities." The freedom of academic autonomy should be considered under three different but coordinated aspects, chiefly the didactic, then the administrative, and finally the disciplinary; under the didactic, with the aim of insuring full scope to the academic body, in determining the limits and the object of each faculty, in introducing new courses in existing institutions, and the opening of new ones whenever such an initiative seems to be warranted by the constant development of science and the new conditions created by science among men. Among these might be included a superior faculty of philosophy to link together the exact and the speculative sciences; higher polytechnic faculties, and a superior faculty of agriculture, the conception of which matures every day in the minds of the masses. Dr. Baccelli says that the chief duty of the faculty should consist in organizing its own curriculum, harmonizing the different university regulations, and planning to meet the continuous calls of pure science and the new requirements of higher professional culture. In order to enable the universities, considered as a unit, to gradually adapt themselves to the rapid evolution of science, it should be the right and the constant duty of the faculty to insist upon a careful selection of professors who are in touch with progressive movements, each institution adopting such rigid rules that it may secure the appointment of the most meritorious professors without being affected by local favoritism and outside influences. The authority thus granted to the universities toward appointing professors to the different chairs should not only constitute a safeguard and a spur to emulation among ordinary and extraordinary professors and applicants for positions, but also bring about a rivalry between institutions of the same class in vying with each other for a good name. Only by such a free and unbiased system of selection, and the freedom reserved to students to seek the institutions where professors are held in special consideration on account of their scientific knowledge, will the importance and the influence of the universities be raised to the desired standard.

However, not to radically change the present methods and regulations for the appointment of regular professors, a period of five years is provided in the bill, with a view to giving the faculty ample time to devise the best plans to be adopted for the appointment of ordinary and extraordinary professors, the appointment to be based on their scientific merits. After that period the faculty should be granted, in every instance, the permanent privilege of nominating to the State the candidate for a vacant chair. As regards the professors who, on account of their scientific attainments and didactic aptitude, would thus be appointed to a chair by their colleagues, if sanctioned by the State, they ought to be entitled to the privilege of giving to their lessons the scientific trend which they may deem best; they ought, moreover, to be left absolutely free to expound, upon their own responsibility, those teachings which they consider as the most apt to foster scientific culture.

Among the arguments brought against the present official system of government selection of ordinary professors, two are specially insisted upon, to wit, the influences foreign to science, which come through political channels under ever-changing administrations, and the fact that ordinary professors, realizing that they have a life tenure under the law of the State, are no longer spurred on to compete for reputation and celebrity, and lose their zeal for knowledge; thus their methods of instruction follow a certain routine which is limited to their early knowledge, and they become indifferent to or unaware of the rapid advance of science. The independent professor, asserts Dr. Baccelli, who is known as an accurate and active contributor to the progress of science, and who, working from known problems and truths to the unknown, has made new discoveries and devised practical applications thereof, is the right man. Surely, a man of this type would not allow himself to be bound by official adherence to a given obligatory curriculum; he would court specialization. Trained scientifically, and teaching to youth, in his turn, the conquests and the ideals of science from original sources, he should be free from the narrow control of bureaucratic authorities and left an arbiter of his high ideals. Criticism may annoy him from time to time, but his career will be marked by success. Soon a group of followers would form around the highly trained teacher with a view to coordinate his ideas, to affirm new principles for the immediate benefit of students, who, ennobled by such an example of intellectual freedom and efficiency, would take delight in their chosen studies, and their minds would be lifted to the loftiest comprehension of their duties to science and society.

Having thus stated his views on the basis of the reform of higher education in Italy, Dr. Baccelli explained the new provisions of law for the practical carrying out of the reform.

The examination for the "degree of maturity," after a stated period of instruction, indicates, to the university authorities, the benefit which the student has received from his general scientific training, and the depth of his theoretical knowledge in the fundamental sciences of his course. This examination in the sciences which constitute the basis of the initial instruction of the student, is to be intended as a substitute for all special examinations. It is a decisive trial of his capacity, and imposes upon him the obligation of a general and continuous study of the most important parts of the curriculum, in order to give him a solid theoretical preparation for the practical part of his professional course. Then, at the end of the entire course, the student, conscious of having mastered a vast department of knowledge, requests the university authorities to judge of his scientific preparation for the exercise of his chosen profession, so that he may obtain the title of "doctor." The faculty should reserve the full right of establishing special conditions for obtaining the academic "laurea," which leads to

professorship and opens the way to the highest offices of the State. But since, owing to the phenomenal development in the applications of science in general and the growing requirements of society, the exercise of the different professions acquires every day a greater authority, the State should assume the supreme control of them as a means of public protection. In the same way and on the same principle that the State—the highest authority—is called by common consent to insure protection to life and property in general, it should investigate and judge if the student on whom the university has bestowed its honorable degree of doctor is really prepared to safely exercise among the people the profession to which he holds a title. In other words, while the university, in view especially of his scientific acquirements, grants him the "degree of maturity," the State alone, on the ground of professional efficiency, should confer the diploma admitting the student to the exercise of his profession, i. e., the "State degree."

In the exposition of his views on the necessity of a State degree, Dr. Baccelli stated that, among other benefits to be derived from that measure, if adopted, the State examination would be a guarantee against laxity in the examinations for the "degree of maturity," thereby protecting society, as far as possible, by assuring the real professional efficiency of the one who obtains a degree; while in the competition between the different universities and institutes for fame and scholarship, it would give proof to the nation of the relative thoroughness of the instruction in the different institutions.

Then, passing to the main point regarding the composition of the supreme jury to be called to judge of scholars, already recognized by a university as having gained, through the doctor's degree, the highest right to the exercise of a science or professorship, the learned academician argues that the best-known practitioners and recognized specialists should be appointed. University professors should not be excluded, however, from this jury, as it would be unjust to exclude them from the final judgment to be rendered in regard to what they had taught, and such a course would eventually deprive them of the opportunity of forming rules for their future guidance. The professors of the university attended by the student should nevertheless be excluded, and others appointed, to whom the student is not known, so that there may be no personal prejudices which might mar their judgment.

As for the courses of study leading to the state degree, there ought to be periodical revision, based upon the changeable conditions and exigencies of society, a principal object being to place restrictions upon the accessibility to the professions. The examination for a state degree would thus constitute a very efficacious means of control as regards the increase and progress of the sciences and knowledge that naturally tend to raise the level of professional culture.

In the Baccelli bill, the question of administrative autonomy naturally follows that of didactic autonomy. The university should be granted the privilege of applying to higher education the endowments or subsidies allowed. The juridical personality of the university ought to be acknowledged by law, and every university ought to be entitled to the full control of its own ancient patrimony, as well as to receive all donations, to be applied to the progress of science, without which the right of legal ownership itself would prove vain. The professors of a university themselves are to be considered as the most competent to judge of the needs of the institution as regards the requirements of the sciences; it being reasonably assumed that they, more than anyone, would be actually and logically interested in the right and useful distribution of such resources.

On the subject of finance, however, the cooperation of the municipal and provincial authorities where the university is located would be permissible whenever one or both chose to contribute to the fund of higher education. Such an addi-

tion to the board of directors from outside of the university would be of particular advantage in two respects: It would divert public attention to the institution and to higher education, and thus attract additional means toward its maintenance and development; moreover, while under the sole direction of the academic body, perchance misinformed or distracted by various influences, one faculty or one professor might be more favored than another, the intervention of local trustees, interested only in the public welfare, would offer a considerable guarantee of equitable treatment.

The necessity of, and general principles governing, a didactic and financial autonomy having been thus affirmed, the university is called upon by the new bill to frame regulations for the direction of professors and students alike. In a general way the maintenance of order in the university should be intrusted chiefly to the students themselves, who are assumed to have acquired a sense of their individual responsibility, discarding as obsolete the by-laws still uniformly applied to all the Italian universities, and replacing them by a disciplinary reform of a more modern type, under which the common interests of the students of a university would be put in their own hands, thus compelling them to eventually give to the unruly elements the "consilium abeundi." The student corps would then have the responsibility that free men always have when freedom is the basis of their action. The youth would feel it more than the elders, because youth is actuated less by the spur of personal interest and more by the principle of right and the ideal of justice not yet obscured in the battle of life.

As a guarantee of the result expected from this reform, based on the principle of self-discipline, the bill provides for national control, the appointment of a Government representative, to reside within the walls of each university, but dependent upon the minister of public education. His duty would be twofold, to wit, to keep the department posted in regard to the disciplinary conditions of the institution, and to assure the Government that all national subsidies, annually granted by the law to each university, are applied in accordance with the objects for which allowed. The State representative should act as a friendly adviser with regard to the students. He should keep the rector informed and aid him to avoid any friction with them, thus leaving the rector free to carry on his high mission. Through this representative, the minister of public education should, in his turn, be kept informed of the discipline of the university, and, in those cases where the character and the future of the university might, on account of illegal application of public moneys, be in question, he should uphold the supreme right vested with the nation.

These limitations in the interference of the State, until now sole supreme regulator responsible for the discipline and order of the university, find their logical explanation in the principle of freedom pervading the new bill.

In regard to the question touching the contribution of the State to universities and the increase of fees to be paid by students—now 33 per cent and in some cases 50 per cent lower than the fees paid by university students of other European nations—the new bill is based on the following views adopted by the majority of Italian scholars interested in the reform of the national universities: As, owing to the traditions of the universities and the political and financial organization of the country, the State is still called upon to support superior education in a measure, and owing to the fact that only a limited number of students benefit from it, if their number be compared to the total mass of the population, a larger contribution should be secured from those who aspire to secure university degrees. Such an increase would tend also to reduce "the call to professions within the needs of the nation," it having been statistically proved that the numerical proportional attendance in Italian universities is in excess of that of similar foreign institutions,

the universities of Germany, for instance. It is also an ascertained fact that, within the last twenty-five years, the rate of increase of the Italian university graduation has proved to have been seven times as large as that of the population of Italy within the same period. The students now attending the 21 Italian universities are about 23,000 in number, with a yearly increase of over 1,000, and there are 15,000 students in the special superior schools or institutes. During the debate before the Parliament, statistics were produced showing that every year in Italy 1,200 students received from the universities the doctor's degree, admitting them to practice in their chosen professions, "in excess of the number that would correspond to the actual need of the nation"—an abnormal result if considered in comparison with the rational balance of education in its three grades, the primary, the secondary, and the academic or special, to the apparent advantage of the latter; this is an undesirable state of affairs, according to the views of the majority of the debaters, inasmuch as it diverted the Italian youth from applying their energy and spirit of initiative to other aims than to the "liberal professions," such as scientific farming, manufacturing, mechanics, electricity, navigation, national and international commerce, and all those safe channels of personal welfare, "necessary for a nation passing through the difficult period of economic reorganization." Hence the duty of the State to secure as far as possible a sound and useful distribution of academic and higher culture by a timely checking of the entrance to the universities of "unfit elements" that would lower their high standard—a restriction that would, in the meantime, deter coming generations from seeking an academic degree because it assures an easy entrance into different positions.

Summing up the debate on the reform, Dr. Baccelli expressed the belief of the majority that, under the provisions of his bill, intended to free the Italian universities from the fetters that still prevent their responding to the modern requirements of science, the State would not loosen its legal and national control of them. Since, while Parliament would no more be called to fix the number and titles, or regulate the promotion of professors, or to establish an obligatory curriculum for students and prescribe uniform rules and by-laws, such rights to be henceforth vested in each university, all such matters would still be under control by being submitted to the superior council of public education for adoption.

That the battle for the reform of the university system in Italy is won, that its beneficial results are felt throughout the country, is to-day understood. For the practical application of the modern elective system of studies, characterized by a free curriculum and free teaching, has been taken up in earnest by the learned men of all the educational centers, with the result of establishing popular universities in many cities. While this educational movement, which tends toward the free extension of the State universities among the people, can not expect at first to have the benefits of the fruits of which a long academic training is the only possible basis, whether in the classical or in the scientific realm, yet in a country like Italy it will undoubtedly prove a useful agency for disseminating a general free high culture, and it will be a powerful initiative toward the solution of the problem of new methods and of progressive modern standards for the Italian universities, the very glorious historical Roman and medieval traditions of which correspond to the period of "freedom of teaching and of learning."

FAILURE OF THE BACCELLI BILL—THE NEW REGULATION OF MINISTER NASI.

Owing to conditions inhering in the political and parliamentary world of Italy and to the divergencies of view existing among Italian scholars with regard to the best and safest methods and measures to be adopted toward reforming superior and university instruction in Italy so as to keep them abreast of the progress of science, the Baccelli bill failed as a whole, like many previous organic projects of reform, to become a law. It failed because it was deemed to involve a too radical reform, for

which "the way should be prepared by gradual approaches;" however, the long and thorough discussion of the subject before the Parliament and in the public press of Italy has itself had a beneficial consequence—that of emphasizing the necessity of a reform, and of paving the way in the direction of freedom of superior teaching and learning in Italy.

The improvements already introduced by the present minister of public instruction of Italy, the Hon. N. Nasi, have been judged rather severely in the press, as having disturbed in many ways the established condition of things without bringing an adequate degree of progress. A summary survey of the views expressed by him on different occasions and in writing will convey to the reader sufficient information to enable him to form an opinion of his personal programme.

At a meeting of the professors of the University of Sicily (1902), where Dr. Baccelli (now minister of agriculture and commerce) introduced him, Minister Nasi said: "It is my aspiration to follow my predecessor's example in the way of reform, and to that end I tried to promote the introduction of all possible improvements that lay within the range of the action of the Government. * * * I hold, however, that the problem to solve is a most difficult one." "Multa renascentur quae iam cecidere; * * * the old order of things returns amended and increased by all the good ones that are in the new"—thus taking, as it appears, a different, almost opposite, view to that of university reform ab imis, on the basis of the absolute autonomy of the university (the aim of Dr. Baccelli and his school). He makes from the start a bold stand for the authority ante omnia of the existing law (1859) governing public instruction in Italy, and is convinced that even at this date that law contains all the potentialities of a gradual reform, and that there is no necessity for a new constructive law.

In Italy, the views and the authority of the heads of the different departments may find their application in the promulgation of regulations and decrees approved by the chief of the state and the ministry. In the special case of the department of public instruction the text of a decree is previously submitted by the proposing minister to the consideration of the superior council of public instruction and to the council of state. Minister Nasi accordingly prepared and submitted the new rules and by-laws which form his "Regolamento generale universitario" (April 13, 1902). Considered in its general outline, it retains the previous juridical and administrative officials of the university, their number, their chairs, and their divisions into faculties, the changes bearing mostly on the rights and duties of both professors and students, and on the subjects forming the new curriculum. "I am convinced," says the minister, "that with a simple reform of the existing by-laws many important questions can be solved, whether didactic, administrative, or touching the discipline of the university. The dominion of the law must be reaffirmed in all its integrity, particularly of the law of November 13, 1859 (the Casati law), which may still be considered as the basis of our universitarian 'jus,' since all the exigencies of modern science may find in its liberal construction their satisfaction."

With regard to the government of the universities, the new "regolamento" aims to draw a clear line between the administrative and the didactic direction, the first being the province of the rector, nay, centered in his personal authority; the second being granted to the "presidi" of the different faculties, while the Government reserves the right to keep in touch with both by means of inspection. To the rector is intrusted full power to secure order within the university, and to protect its prestige; for he is vested with authority over "the professors themselves" whenever, "in or even out of the university," by act, speech, or writing, they shall discredit their lofty calling; the academic council being requested to take up the matter whenever his appeal to order, verbally or in writing, may be disregarded by a professor; "since the function of teaching implies a lofty mission, which finds its exercise not only within the university, but likewise in the decorum of public or private life."

As to the academic council, a consultative body, while the law provides that onl

the chairmen or presidents of the faculties, and the directors of superior and special schools attached to the university, are called to membership in it, yet, owing to the increasing necessity of outside professors, and in justice to them, the regolamento prescribes that to the general assembly of professors shall henceforth be admitted not only the regular ones (ordinarii), but also all others attached, under whatever title, to the university (straordinarii). The latter are henceforth admitted to a regular promotion by means of "concours" (competition), and a special commission is appointed for that purpose; but their appointment is vested only in the minister of public instruction, who reserves also the right to see to it that in the addition of new elements to the faculty there shall be "no unjustifiable intrusions in the field of superior teaching;" and in order to avoid most of the difficulties, dissatisfaction, and recriminations that every concours seems to leave behind it, the regolamento returns to the enforcement of the exact text of the Casati law, with the addition of all those guaranties that can secure the object of the concours. The law prescribes that the committee of judges shall be appointed by the minister responsible in re from among persons eminent for their learning and their teaching experience; but, as a new feature, all the regular professors of the faculty are previously invited by him to designate in writing their choice and their motives for same.

The regolamento contains many provisions regarding the rights and the duties of both professors "straordinarii" and "liberi docenti" and their teaching, based on the principle of an absolute freedom of teaching: "I am decidedly favorable to the principle of academic freedom; * * * but the professor of a university is under duty to freely teach the science he has studied, conceived, or advanced, provided he does so most seriously and with severity of method, while having a great respect for opposing opinions. * * * In the field of science experimental sciences offer no motive to agitation; but in the case of the moral and philosophical sciences, * * * if one tries to impose his own doctrine, the contrary one will command attention and assert its importance." (Speeches, 1901, Congress of the National Teachers' Association.) Such views found their application in the introduction to the regolamento, where he assumes that "no one imparting superior instruction shall be allowed to consider himself independent of all hierarchical ties and due consideration for the political as well as for the university authorities, outside even of the time and of the place where the professor exercises his functions." This limitation was probably occasioned by recent occurrences, such as the free utterances of some university professor in the field of governmental policy, or on social problems agitating the masses, or, maybe, an objectionable private life. It evolved much criticism, appearing to many as not in touch with the requirements of the times, and, a priori, severe and unjust toward the professors as a whole.

As to the changes introduced by Minister Nasi with regard to the students of the university, freedom is granted to them of arranging within certain limits their courses, whether obligatory or complementary; also the choice of the professor; but every year the courses must be indicated for which the inscription is requested. The by-laws of the faculty, however, must indicate the minimum of courses necessary for the year. In those faculties which include different grades, the examination for any one of them shall be granted only when the student has passed the examination of the preceding grade; this to prevent the grave inconvenience of tending to accumulate in the last year all the examinations, or the greater number of them. With regard to the application of disciplinary measures, the student is granted the right first to make his own defense. In the case, however, of disorders reaching beyond more than one class, and such as would disturb the regular order of a faculty or of all of them, the rector is vested with the power of closing the university, and, upon the advice of the academic council, he may keep it closed for eight days; to the minister is reserved the right to extend this disciplinary measure to thirty days, after which the annual examinations shall be considered as suppressed for that year.

DR. BACCELLI'S BILL PROVIDING FOR THE AUTONOMY OF THE ROYAL UNIVERSITIES AND THE TWELVE SUPERIOR SCHOOLS AND INSTITUTES OF ITALY.

ARTICLE I.

Legal corporate existence with didactical, disciplinary, and administrative autonomy are hereby granted to the royal universities and institutes of superior education under the supervision of the Government.

The Government shall exercise this supervision through officers of the department of public education, one for each institution. He shall report to the minister of public instruction.

The by-laws of each faculty shall be compulsory upon both professors and students.

On the motion of the minister of public instruction and the advice of the superior board of the department of public education and of the council of state, a royal decree shall determine the regulations of the aforesaid triple autonomy.

ARTICLE II.

The apportionments of each institution shall be determined according to special regulations and shall be inserted in the budget of the deparment of education. Such apportionments, as well as any other income allowed by this law to each institution, shall be exempted from taxes.

Percentages on salaries on account of income tax and pension funds shall be retained by every institution and deposited in the treasury and be diverted to provide for pensions and increase of salaries occurring, as prescribed by law, every five or six years.

The real property of said institutions not used for any special purpose shall be sold or transferred within ten years from the promulgation of the present law and the amount obtained therefrom invested in Government bonds, unless applied to educational purposes.

Under the same conditions, all gifts and bequests made to any institution shall be converted into Government bonds, unless special dispositions are mentioned in the deed of gift or bequest.

ARTICLE III.

New universities and schools of superior education, as well as new additions to existing institutions, shall be regulated by law.

ARTICLE IV.

The executive committee of each institution shall be composed of the rector as president, the representative of the Government, and the elected representatives of the faculties and sections of the institution, according to rules determined in the by-laws.

Persons or corporations contributing to the resources of the institution, for at least as much as one-tenth of the Government allowance, shall be entitled to be represented on the executive committee.

The estimates and apportionments of each institution voted by the executive committee shall be submitted to the approval of the minister of public instruction.

ARTICLE V.

The faculties of universities and the sections of schools of superior education are granted the right to propose to the minister all appointments of ordinary and extraordinary professors. The minister, on the advice of the superior council of his department, shall make or veto such appointments.

All the appointments shall be made by royal decree.

When competition is proposed, the same shall be regulated and supervised by the department of education.

ARTICLE VI.

The universities and institutions of superior education so authorized, shall confer upon students the "laurea," or diploma, and the Government shall give the license permitting the exercise of the profession.

Students not graduated from a college shall not be admitted either to the examination for the "laurea" or for the license.

The subjects of examination for college graduates shall be determined by the special regulations of each institution.

The "laurea" is required for teachers desiring to be appointed to superior and secondary schools. Exception is made in cases defined by the law enacted November 13, 1859 (No. 3725).

Present examinations for lawyers, solicitors, and public notaries and the license are abolished by the present law.

The regulations, provided concurrently by the departments of education and of justice, shall determine the special conditions for admission to Government examinations for such students as have been graduated in law.

The board of State examiners, annually appointed by the minister of public instruction, shall be composed of professors other than those of the institution where examination is to take place and of persons eminent in their professions.

ARTICLE VII.

The courses held by private teachers, in order to have the same effect as those held by Government teachers, must follow the same programmes and be of the same duration.

Private teachers shall be entitled to sit on the board of examiners for college graduation with the same rights as the Government professors in all matters pertaining to their course.

Under the same conditions, private professors are to be preferred, when in competition for a university chair, to Government professors.

ARTICLE VIII.

All fees for superior education are divided as follows:

(1) Fee for the annual registration.

(2) Fee for the annual registration in special courses.

(3) Fee for college graduation.

(4) Fee for the examination for the "laurea," or diploma.

(5) Fee for State examination.

(6) Fee for admission to competitive examinations for ordinary and extraordinary professors.

(7) Fee for private teaching.

Fees under 1, 5, 6, 7 shall be paid to the treasury.

Fees under 2 shall be divided among official teachers and the private professors for whose courses students have been registered.

One-fifth of the total amount shall be divided among those professors whose particular subject of teaching applies only to a restricted number of students.

Appropriations under 3 and 4 shall be granted to each institution for pedagogical purposes.

Deserving students, who prove their inability to pay university fees, shall be partially or wholly exempted from payment, or they may be permitted to obtain a delay.

For the purpose of obtaining such privilege, in the case of courses given by private teachers, the consent of the professor is required.

ARTICLE IX.

The faculties, sections of institutes, and schools of superior education that can not show, during two consecutive years, a total number of legally registered students, which, divided by the years of the courses, may correspond to at least eight students per year, shall be ruled out of existence.

The law of November 13, 1859, provides for the statutory regulations of the faculties, institutes, and schools of superior education, account being kept of their scientific progress.

The apportionments for faculties or sections of institutes which may have been closed shall be handed over to the university or institute.

The Government out of said apportionment shall dispose of such amount as is required for pensions or for fees due to professors and employees.

In case a university or school of superior education ceases to exist, the above expenses being settled, the remainder shall go to the city, provided the city authorities create an educational institution which may be of more value to local interests, or may be an improvement upon existing institutions.

ARTICLE X.

All free universities offering sufficient scientific guarantees under the present law shall be entitled by royal decree to the same rights as those of the State universities.

ARTICLE XI.

All provisions antedating the present law are hereby repealed. All by-laws shall be approved by royal decree.

TEMPORARY PROVISIONS.

ARTICLE XII.

For the five years following the enactment of the present law the appointments of professors shall be made in accordance with the law of November 13, 1859.

ARTICLE XIII.

The rights of tenure of office and promotion acquired by professors and employees at date of enactment of this law are hereby assured.

Increase of salaries shall be made by the department of public education.

Pensions shall continue to be paid by the national treasury.

ARTICLE XIV.

The provisions of this law shall not affect those professors who, at the date of its enactment, had already commenced a course of studies in any institution to which the law applies.

The present law shall take effect at the beginning of the academic year.

Annex A.—Public institutions of superior education to which the present law refers.

Institution.	Date of foundation.
University of Bologna	Eleventh century.
University of Catania	1434
University of Cagliari	1626
University of Genoa	1242
University of Macerata	1290
University of Messina	1549
University of Modena	1678
University of Naples	1224
University of Padua	1222
University of Palermo	1805
University of Parma	1512
University of Pavia	1300
University of Pisa	1338
University of Roma	1303
University of Sassari	1677
University of Siena	Thirteenth century.
University of Turin	1404
Institute of Superior Studies in Florence	1859
Scientific and Literary Academy of Milan	1859
Superior Technical Institute of Milan	1859
School for Applied Engineering in Naples (reorganized 1863)	1810
School for Applied Engineering in Rome	1873
School for Applied Engineering in Turin	1859
School for Applied Engineering in Bologna	1877
Superior School of Veterinary Medicine in Milan	1859
Superior School of Veterinary Medicine in Naples	1856
Superior School of Veterinary Medicine in Turin (reorganized in 1860)	1798
Superior Institute for Normal Training of Women, Rome	
Superior Institute for Normal Training of Women, Florence	

Annex B.

The appropriation for each institution named in Annex A shall be included in the budget of the department of public education, in accordance with the following regulations:

EMPLOYEES.

I.—UNIVERSITIES.

(a) The appropriation shall include the salaries of the ordinary professors to which each university is entitled, in accordance with the number of faculties and courses and in accordance with the law of November 13, 1859, or any other special law established by existing regulations.

In the universities in which the ordinary professors exceed the regular number the apportionment shall be provisionally increased by the required amount as long as the additional professors remain in charge. When they cease to teach, said amount shall be subtracted from the appropriation for the institution when applied to optional courses. Said amount shall be converted, however, into a salary for an extraordinary professor in case the courses are obligatory.

The salary of ordinary professors shall be fixed at 5,000 lire ($1,000) and 3,000 lire ($600), according to the rank of the university.

(*b*) The appropriation shall also include the amount corresponding to the number of extraordinary professors of each university at the date of the enactment of the present law. Such amount, however, shall be curtailed for those universities in which the number of ordinary professors at said date is inferior to the number allotted. That reduction shall correspond to the salaries of as many extraordinary professors as there are ordinary professors who are not fulfilling regular duties.

Salaries of extraordinary professors shall be established on the basis of 3,500 lire ($702) and 2,100 lire ($420).

(*c*) The appropriation shall also include the amount corresponding to the number of additional teachers of each university at the date of the enactment of the present law. The basis shall be that of a salary of 1,200 lire ($240) and of 1,000 lire ($200), according to the rank of the university.

(*d*) The amount entered in the last budget under the following denomination: "Amount destined for new appointments or promotions, and for teachers in special courses," shall be divided among the universities (exception is made of the free University of Macerata), in proportion to their allowances, as stated in paragraphs a, b, and c.

Such amount shall be curtailed to the extent of the expenses resulting from the application of rules stated in paragraphs a, b, and c.

(*e*) The budget shall also include an amount corresponding to the expenses for salaries of employees of all scientific establishments, according to existing regulations.

(*f*) It shall also include an amount which corresponds with the salaries of the administrative staff of each university in accordance with the regulations.

(*g*) The present financial arrangements between the Government and the University of Macerata remain unchanged.

II. SCHOOLS AND INSTITUTES OF SUPERIOR EDUCATION.

(*a*) The appropriation shall include the amount required for the salaries of teachers and employees of institutes and schools of superior education, in accordance with the existing regulations for the schools of application of civil engineering of Bologna, Naples, Rome, and Turin; for the Superior Technical Institute of Milan, and the superior schools of veterinary medicine of Milan, Naples, and Turin, and for the higher normal schools for women in Florence and Rome.

(*b*) The regulations in regard to financial arrangements between the Government and the Superior Institute of Practical Studies in Florence shall remain as provided by law of June 13, 1872 (No. 885).

III.

The amount included in the last budget under the denomination of "Allowances to extraordinary employees, and indemnities for extraordinary services" shall be divided among all the universities, institutes, and schools of superior education; exception is hereby made of the free University of Macerata, the Institute of Florence, above mentioned, and the Superior Institute for female students, the exception to be in proportion to the appropriation to each of these institutions.

IV.

Increase of salaries and allowances for residence in Rome shall not be included in the above regulations, and they shall continue to form part of the budget of the department of public instruction in accordance with article 2 of this law.

FURNITURE.

The budget shall also contain appropriations for scientific laboratories, office expenses, rent of buildings, care of premises, furniture, lighting, heating, and appliances for teaching, and for purchase of laboratory apparatus for the higher normal schools for women in Florence and in Rome.

I.

Regular appropriations shall be made to each university, institute, and school of superior education to correspond to the apportionment included in the last budget of the department of instruction, with an additional tenth part.

II.

Apportionment shall be made of the amount included as "Fund for supplement to appropriation and increase of expenditure which may occur," in accordance with the last budget, with an additional tenth, to be divided among all universities, institutes, and schools (exception is hereby made of the higher normal schools for women in Rome and Florence) in proportion to the amount allotted to each university or institute.

The part which is actually used for the ordinary expenses of said universities and institutes

shall be deducted from the fund and added to the regular amount allotted to each university and institute.

FEES.

	Lire.	United States equivalent.
(a) Annual registration.		
Faculty of jurisprudence	150	$30
Faculty of medicine and surgery	150	30
Faculty of physics and mathematics	100	20
Faculty of higher mathematics and school of application for civil engineers	150	30
Faculty of philosophy and literature	100	20
Courses for the "laurea" in chemistry and pharmacy	150	30
Courses for license in chemistry	100	20
Courses for solicitors and notary public	150	30
Courses for veterinary medicine	100	20
Courses for agricultural science	100	20
Courses for gynecology	50	10
Higher normal schools for women students	50	10
(b) Annual registration for the various courses.		
Course of one hour, weekly	5	1
Course of two hours, weekly	10	2
Course of three hours, weekly	15	3
Course of four hours, weekly	20	4
Course of five hours, weekly	25	5
Course of six hours, weekly	30	6
(c) Examinations.		
For college graduation	50	10
For "laurea" or diploma	300	60
For license to teach in all the female schools of the Kingdom and in the higher normal schools for women	100	20
(d) Government expenses.		
I.		
Jurisprudence	500	100
Medicine and surgery	500	100
School of application for civil engineer	500	100
School of pharmacy for diploma of practice	300	60
Solicitors and notary public	300	60
Veterinary medicine	300	60
Agricultural science	300	60
Gynecology	200	40
II.		
Fee for admission to competitive examinations for ordinary professors	500	100
Fee for admission to competitive examinations for extraordinary professors	500	60
III.		
Fee for private teaching	300	60

CHAPTER XVIII.

ILLITERACY OF THE VOTING POPULATION IN THE UNITED STATES.

PREPARED UNDER THE DIRECTION OF CHARLES W. DABNEY, PRESIDENT OF THE UNIVERSITY OF TENNESSEE, FOR THE SOUTHERN EDUCATION BOARD.

The census shows that in June, 1900, there were in the United States 2,326,000 men of voting age, 21 years and upward, who were unable to read and write. This was nearly 11 per cent of the total number, which was 21,330,000.

In a country whose government is determined by popular suffrage, these figures can hardly be regarded with satisfaction. The voter ought to be intelligent. He should have some understanding of the Government whose policy he is to shape, and of the men whom he is to assist in elevating to office. Who will argue that the man who has never read a line of American history or familiarized himself with any great question of statesmanship, or even spelled out the headlines of a newspaper, is competent to cast a ballot? Yet one ballot in every ten is probably cast by such a voter.

At the last Presidential election the total vote was 13,961,566, and the plurality of the successful candidate, 849,790. Suppose in such a case that the ignorant voters should all be on one side; or suppose that the 2,000,000 men of this class should come under the control of unscrupulous leaders who should use them for unworthy purposes. What would become of the stability of the Republic?

Who are these illiterates and where are they? Many are of the negro race, 977,000; but more are white, 1,254,000. In 1870 the greater number were negroes, 838,000 to 748,000 white, an excess of 90,000. Thirty years have changed this and now the white illiterates outnumber the negro by 277,000.

Of the white illiterates a large proportion are foreign born, 565,000, but the number of native born is 688,000, or 113,000 more than the foreign-born illiterates. It appears also that the per cent of illiterates among the native-born sons of native parents is nearly three times as great as among the native born of foreign parents. With the former it is 5.8 per cent, with the latter 2 per cent, indicating that our schools are accomplishing their purpose better for the children of immigrants than for our own American families.

Two sources of danger are often spoken of as threatening our national life—one from the negroes, the other from foreign immigration. But these two are not all. Wherever there is incapacity for the duties of citizenship there is danger, and the illiteracy of 688,000 native-born white Americans of voting age is no more to be disregarded than that of immigrants and negroes.

The tables given at the end of this chapter are designed to show how the people of different races are distributed throughout the country and what are the conditions as to illiteracy among them in the several States and Territories.

Table I presents five different race elements of the population in separate columns—1, total white; 2, native white of native parents; 3, white of foreign parentage; which includes the native white of foreign parents and the foreign born;

4, negroes; 5, Indians. In each column the State having the smallest per cent of the specified race element stands first, and the other States are arranged in order beneath, with the one having the greatest per cent at the bottom. Thus in column 1, Mississippi stands first, having the smallest per cent of white population, 41.3 per cent of the whole, and New Hampshire is last in the list, having the greatest per cent, 99.8 per cent of the whole.

A study of this table will enable one to see how different are the constituent elements of the population in different States and Territories. In a few the white element is hardly half and the negro element is correspondingly large. In many others the negro element is so small as to be hardly appreciable and the whites constitute almost the whole. So also with reference to the relative proportions of the native and foreign white elements, the latter including the native white of foreign parents. In a number of the Southern States the foreign element is insignificant, the white population being almost entirely native American, while in other States, especially in the North and West, this element is large and sometimes preponderant. In Minnesota and Wisconsin it is nearly three-fourths of the population, while in North Dakota it is even more than this.

The Indian element is small, except in Alaska and Arizona. Mention should be made perhaps of the oriental element from China and Japan, which attracts considerable attention on the Pacific coast; but this is relatively very small and is not treated separately in the Census Bulletins.

Table II shows the proportion of men of voting age who are unable to read and write, by States and Territories. The arrangement is in five columns, giving the per cent of the illiterate—1, in the aggregate number of men of voting age of every race; 2, among the native white of native parents; 3, among the white of foreign parents; 4, among negroes; 5, among Indians. The States having the smallest per cent are first, as in Table I, and the other States are arranged in order beneath, with those having the greatest per cent last.

It will be seen that the illiteracy among the Indians greatly exceeds that among the negroes, and that it varies from 1.3 per cent in Pennsylvania to 91.7 per cent in New Mexico. The variation is also marked among the negroes, though not to the same extent. It seems to be generally true that where there are few they are the most intelligent, and where they are numerous the illiteracy is greatest. Hence the comparatively small per cent in Alaska, Utah, and Minnesota, and the large per cent in the Gulf States.

In the column of aggregates, 1, the region of the Northwest is seen to have fewer illiterates in proportion to population than any other part of the country. Nebraska and Iowa have less than 3 per cent, while the older States of the East, Massachusetts, Rhode Island, Connecticut, New Jersey, and Pennsylvania, have 6, 7, 8, and 9 per cent. The proportion is much the greatest in the South, due in no small degree to the large number of negroes.

In columns 2 and 3 the illiteracy of the white population is shown in the two separate elements, those of native parents and those of foreign parents. The former, column 2, is especially significant, as relates to the South, for only in the Southern States do we find a large proportion of illiterates among the native white people of native parents. This will be considered more in detail when we come to Table V.

Column 3 is especially significant for the North and West, as dealing with the foreign element. A glance will be sufficient to convince one that the foreign element is very different in different parts of the country. In the Northwest the per cent of illiterates is smallest, in the more densely populated States of the East, with their numerous manufactories, it is considerably greater, while the greatest per cent appears in regions as widely separated as Maine, New Hampshire, Texas,

Arizona, New Mexico, and Hawaii. Under such circumstances the foreign illiteracy of any particular State or Territory ought to be considered by itself.

Table III presents a further analysis, with fuller details of the conditions of illiteracy in the white population of voting age. Three elements are given in three separate groups, viz, native white of native parents, native white of foreign parents, and foreign white. In each case the total number of men of voting age is given, with the number of illiterates, and the per cent of the latter to the former.

In this latter table, and in others which follow, States and Territories are arranged by groups as the North Atlantic division, the South Atlantic, the South Central, the North Central, and the Western. Alaska and Hawaii are omitted. It will be interesting to notice first the figures for the United States as a whole, next, those for each division, and, finally, the figures for separate States.

The United States has 10,569,743 white men of voting age of native parentage. Of these 2,760,103 are in the North Atlantic division, 1,466,826 in the South Atlantic, 2,055,858 in the South Central, 3,656,293 in the North Central, and 630,663 in the Western. The number of these who can not read and write is, for the whole country 618,606 or 5.9 per cent, for the North Atlantic division 57,767 or 2.1 per cent, for the South Atlantic 178,564 or 12.2 per cent, for the South Central 237,239 or 11.5 per cent, for the North Central 127,480 or 3.5 per cent, and for the Western 17,556 or 2.8 per cent. If now the two Southern divisions are combined, it will be found that they contain together 3,522,684 men of voting age of the class named, or about one-third of the whole, and 415,803 who can not read and write, which is nearly two thirds of the illiteracy of the whole country. In other words, it will be found that the per cent of such illiterates in the North and West is 2.9, and in the South 11.8, four times as great in the South as in the rest of the country.

The other two columns of this table, however, tell a different story. The foreign element is small in the South and the problem of foreign illiteracy belongs especially to the North and West. Nevertheless, it will be seen farther on that the question of handling our immigrant population has a direct connection with the other question of just treatment for the people of native parentage.

Column 2 shows the number of native white of foreign parentage in the United States to be 3,444,684, of whom 68,975 are unable to read and write. If we combine the two Southern divisions, it appears that the South has 281,170 of this class, of whom 12,501 are illiterate.

Again, column 3 shows the number of foreign white in the United States to be 4,904,270, of whom 562,316 are unable to read and write. Of these the two Southern divisions together contain 282,559 with 45,334 illiterate. Compare this showing with that of some single States in the North. Massachusetts has 343,522 of this foreign element and 47,436 illiterate, more in each particular than the whole 18 States of the two Southern divisions. New York has 829,474 with 100,776 illiterate, more than twice as many in each particular as these 18 States. New York City alone contains 539,746 with 61,086 illiterate.

Now compare the three classes of males of voting age and observe one fact: The per cent of illiterates among the foreign born is large, but among the native born of foreign parents it is much smaller than among those of native parents. This is so in the figures for the United States as a whole and for every one of the divisions. For the whole country the per cent of illiterates among the native born of native parents is 5.85, while among the native born of foreign parents it is only 2.0. In the two southern divisions together the percentages are 11.8 and 4.4, and in the aggregate, North and West, 2.9 and 1.8. This seems to indicate that the nation is doing more for the education of the children of immigrants than for those of its own people.

How is this to be explained? It may be said that the children of immigrants have been readier to learn and that their parents have been more ambitious about them. Few will accept this, probably, as a sufficient explanation. One thing is quite plain: The children of immigrants usually live in the immediate neighborhood of good schools, while a large part of the children of native Americans are not so well situated. Those immigrants in Massachusetts, outnumbering all in the two southern divisions, and those in New York outnumbering them more than twice over, are within reach of good schools for their children and under compulsory laws that require their attendance. But what of the parents of those 415,803 illiterate men of voting age in the Appalachian Mountains and other parts of the South? How many of them are in the neighborhood of good schools or under a compulsory law requiring that their children shall regularly attend?[a]

In every New England State the per cent in column 1 is less than that in column 2. This comes from the prevalence of good schools, as well where the American children live as in communities where most of the foreigners are. But think of a rate of illiteracy that is only 1.3 per cent and compare it with that of Kentucky, which is 15.5, or of North Carolina, which is 19, or of Louisiana, which is 20.3, or of certain neglected counties—not a few—where it runs up to 30, 40, or 50 per cent. This tells what the children of native Americans do when they have a chance and how they fail when no chance is given.

Table IV is designed for a further exposition of this subject. This table presents the illiteracy of the three elements of population we have been considering as existing in cities of 25,000 inhabitants and upward.

There are 160 of these cities, of which 29 are in the two southern divisions and 131 in the North and West.

Comparing this table with the one preceding, it may be seen at a glance that the proportion of illiterates is much less than in the preceding table. We see also, in running the eye over groups 1 and 2, that the illiteracy of the native white, whether of native or foreign parents, does not differ greatly in the cities of the several divisions. In three divisions it is less than 1 per cent for either element, in the others it is less than 2, and only in the single State of Arkansas does it rise as high as 3.

Again, the proportions of the three elements of population in these cities is significant. Of the native white of native parents less than 18 per cent are in these cities; of the native white of foreign parents over 41 per cent are found there, and of the foreign born over 46 per cent. In the two southern divisions the proportion of the first element is less than 10 per cent, of the second it is 45, and of the third 37. This shows to how much greater extent the children of foreign parents are within reach of good schools than those of native parents, for all know that the large cities have greater educational advantages than generally prevail in the country.

For a satisfactory treatment of the subject, however, account should be taken of the cities whose population is less than 25,000, but in which the conditions are very like those of the larger cities. The census gives an enumeration of all the people in cities of 4,000 inhabitants and upward. By applying the proportions that hold in cities of 25,000 and upward, estimates may be obtained for those of 4,000 and upward that are probably near the truth. Such estimates are presented in the next table.

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[a] The idea seems to be conveyed here, as well as elsewhere in the course of this discussion, that present school conditions are responsible for the degree of illiteracy of the voting population in different localities or sections. It should be borne in mind, however, that persons of voting age are long past their school period, and that the illiteracy of this element of the population is the product of educational conditions that prevailed from seven to seventy and more years ago. Conclusions drawn from a consideration of the present urban and rural or the present geographical distribution of different classes of the population are also open to a like objection.—ED.

Table V offers for comparison five groups of figures relating to the native and foreign population in the North and South. The first group gives the figures for the three white elements as a whole, wherever they live, in city or country. The second does the same for those in cities of 25,000 and upward. The third contains the estimates for places of over 4,000. After this two more groups are seen which were obtained by subtracting the figures in the second and third groups from those in the first, thereby arriving at the numbers in each class living elsewhere than in the larger cities or in any cities of over 4,000.

Looking at the third group for places of 4,000 and upward, it appears that the number of white males of voting age of native parents in the South is about 568,000, of whom about 8,000 are illiterate, about 1.5 per cent. But look now at the fifth group, where it appears that about 2,954,000 are living outside of cities of 4,000 and over, of whom some 407,000 are illiterate, or about 14 per cent. These 407,000 living in the rural parts of the South constitute over two-thirds of all the illiterate of their class in the United States; in those rural parts of the South there are only 114,000 foreign born, of whom less than 30,000 are illiterate.

Look again at the third group and mark the number of foreign born in the 951 cities of the North and West. They are over 3,000,000, and the native born of foreign parents are 1,846,000. Two-thirds of all the foreign born in the North and West are in those cities and enjoying the rare school advantages which are a part of modern city life.

Table VI presents one more phase of this subject. While showing side by side, in groups 1 and 2, the contrast between the educational conditions in the large cities and outside of them, there is a third group depicting the prevalent illiteracy in the more backward rural counties.

The contrast between these counties and the cities is striking in each group and in every State and Territory. But it is most impressive in the South. In the North Atlantic division the per cent of white illiteracy in large cities is greater than in any of the other divisions, but the per cent in the rural counties is less than elsewhere, unless in the North Central. On the other hand, in the two southern divisions the illiteracy of whites in the cities is small, but in the back counties it is especially conspicuous.

This is better seen when the record of the several counties in each State is examined (Table VII). There are counties in the North where the illiteracy is bad. New England has one county, Aroostook, Me., where the proportion of white males of voting age who can not read and write is 23.1. New York has a county, Clinton, where it is 24.6. There are some States in the South which contain no county with so high a rate as these. It is so with Maryland, Mississippi, and Arkansas. But in most of the Southern States the number of counties with a high rate of illiteracy is large. This is naturally so because conditions similar to those of Aroostook and Clinton counties widely prevail.

The list which is given herewith shows the particular counties in the whole country which are conspicuous for illiteracy of the class under consideration. Most of them, it will be seen, are in the South and Southwest. Often these counties are found near to others in the same State where the educational conditions are in strongest contrast. Thus, in North Carolina Stokes County, with an illiteracy of 32.5, is adjacent to Guilford, with a per cent of 10.8; and in Kentucky Estell, with an illiteracy of 26.4, adjoins Clark, where the rate is 7.0, while in Louisiana Jefferson, with an illiteracy of 49.8, is next to Orleans, where it is 5.4.

Generally, however, the more illiterate counties of a State are contiguous. In Virginia, the Carolinas, Kentucky, and Tennessee the mountain regions are in unfavorable contrast with other portions, and in Louisiana the counties along the coast are particularly backward. Texas exhibits the most remarkable extremes. Twenty counties report no white illiterates, and in most of the State

the proportion is small, but in the southwestern counties bordering on Mexico the illiteracy is greater than anywhere else in the United States. The latter unfavorable conditions are met with also to the westward, in New Mexico and Arizona.

The list contains 231 counties in which the proportion of white males of voting age who can not read and write is from 20 to 53 per cent. When it is considered that the per cent for the same class in the 160 large cities of the United States is only 4.5, the conclusions to be drawn are manifest. When it is borne in mind, moreover, that 226 of these counties are in the South and Southwest it hardly needs argument to show in what part of our country is the greatest need of improved schools.

A vital question is that of tendency. Is there progress or retrogression? Is the illiteracy in a particular place or among a certain people increasing or diminishing? For light on this point comparison may be made of the conditions as described in one period with those at other times.

For seven successive decades, beginning with 1840, reports concerning illiteracy have been published by the United States census. An examination of these will convince any scholar of their great value. This is so especially in case of the earlier reports. It is common to think of the science of statistics as belonging to the present and to underestimate the figures of an earlier period; but in the census reports of 1840, 1850, and 1860 will be found an exactness of detail and completeness of enumeration that carry in them the evidence of trustworthiness. The census of 1850 is particularly noticeable for the thoroughness with which it delineates the conditions of illiteracy in each county, and thus enables one to compare the status of the people, within districts of limited area, at the beginning and the end of half a century.

Table VIII presents the figures for white males of voting age, with proportion of illiterates, according to the plan of previous tables, at each decade, from 1840 to 1890.[a]

During the sixty years the white male population of voting age in the United States, excluding Alaska and the insular possessions, appears to have increased from 3,324,115 to 18,918,697; the number unable to read and write, from 204,413 to 1,249,897, and the proportion of illiterate, 6.15 to 6.60. It is especially significant that the proportion unable to read and write is found to be greater now than sixty years ago.

Looking at the several divisions, the North Atlantic States are seen to have increased in their number of illiterate from 39,000 to 402,041, and in per cent from 2.30 to 6.56; the South Atlantic from 69,077 to 192,887, but the per cent is less; the South Central from 55,741 to 280,751, but again with a diminished per cent; the North Central from 40,242 to 319,316, still with a diminished per cent; and the Western from 17,250 (in 1850) to 54,902, also with a less per cent.

The figures indicate that conditions have somewhat improved in all divisions except the North Atlantic, where they are going the other way. In 1840 the States with the least illiteracy among white males of voting age were Connecticut, New Hampshire, and Massachusetts. In 1900 they were the District of Columbia, Oregon, and Washington. In 1840 Connecticut is estimated to have had 219

[a] A considerable portion of these figures have been obtained by estimate. Where this is the case it is indicated by a star at the head of the column. In 1840, 1850, and 1860, the figures are for males 20 years of age and upward. In 1870, 1880, and 1900 they are for males 21 years of age and upward. In 1890, there are statistics of both these classes which show that the former outnumbers the latter by about 3.5 per cent, though with slight variations in different States and Territories. These proportions, disclosed in 1890, have been used to reduce the figures for twenty years and upward, so as to conform to the others, and make them all for the voting age, or 21 and upward. The figures of 1840 are for adults, without distinction of sex, necessitating a further modification by division according to the proportions of males and females in 1850.

illiterate white men of voting age, New Hampshire 513, Massachusetts 1,812. Now they have, respectively, 18,265, 10,228, and 51,785. In the 6 New England States the number in 1840 was 5,930, less than 1 per cent of the voting class; now it is 113,675, over 6 per cent. In some counties the change within sixty years is still more marked. York County, Me., shows an increase from 1.6 per cent to 7.8; Barnstable, Mass., from 2.8 to 7.4; Kent, R. I., from 2.5 to 14.3, and Windham, Conn., from 1.8 to 14.6.

These figures tell of a tendency to which attention should be called. Nowhere else in the country is there supposed to be so much done for education as in these North Atlantic States. How is it that here the illiteracy is so much greater than fifty or sixty years ago and how is it that Windham County, lying midway between Boston and New Haven, between Harvard and Yale universities, records an increase from 148 to 2,016 men who can not read and write?

"The inflow of ignorant foreigners" is an easy answer, but Windham has 329 illiterate who are the sons of native parents, over twice as many as the whole number fifty years ago. In all these North Atlantic States there are 57,767 who are sons of native parents, over 18,000 more than all the illiterate of this class in 1840.

The South Atlantic and South Central divisions show a slight decrease in illiteracy since 1840, and for the period since 1870 the decrease is from 16 to 11. The decade from 1860 to 1870 shows in its records the disastrous effects of the war on the schools, for the number of illiterate advanced from 189,434 to 283,715 and the per cent from 12 to 16. That these States should have rallied so quickly and with each subsequent decade recorded a marked reduction of the illiteracy may well be regarded as occasion for congratulation.

It yet remains true, however, that the South has a much larger proportion of illiterate people than the other divisions. Nor is it by any means true that there is a steady improvement in this respect all over the South. Louisiana is a conspicuous exception. The number of her illiterate in 1840 was 4,683, less than 10 per cent, and in 1900 it was 32,039, 18 per cent. It is noticeable, too, that there has been a steady advance in illiteracy with each decade since 1860, when the per cent was only 7.9.

A similar story is recorded of many different counties in the other States. Some counties show remarkable progress; others show a retrograde movement equally remarkable. Thus, in Virginia the per cent of illiterates in Alexandria County in 1850 was 16.6. Now it is 3.7. In Prince George County it was 37.2, and now it is 9.3. Then, in striking contrast, Grayson County in 1850 reported 4.9 per cent. Now there is an advance to 16.4. Washington reported 6.3. It is now 21.2. Stafford reported 10.9. Now it is 24.2.

These figures for the smaller districts are much more significant than those for a whole State. The figures for a State can only express an average. Those for a county or town come nearer to the definite, actual facts that have to be dealt with.

It is especially necessary in the South to avoid the general and get at the particular. In the case of a State like Kentucky, in which several counties have *only* 4 or 5 per cent of illiterate and a number more have over 30 per cent, or a State like Texas, in which 20 counties have no illiterates at all and several others *have* over 50 per cent, it will not answer the purpose to strike an average. Each *county* and, if possible, each community must be faithfully studied by itself. Its *particular* history must be known. The prevalent tendencies, whether upward *or downward*, backward or forward, are to be found out. Then it will be clearer *what course* to take.

The Census reports afford materials for a separate study of the people of negro *descent*. Table IX is prepared on the plan of Table VIII and covers a period of

fifty years. For the first two decades, 1850 and 1860, the figures are for free colored people in distinction from those in slavery. The age limit for these decades is 20 years and upward, while for the following decades it is 21 and upward.

The lesson of the whole table is one of progress. This appears in the first two decades. The number of free negro males of voting age was not large, little over 100,000 in 1850 and about 115,000 in 1860; but the decline in the proportion of illiterate during those ten years is from 39.5 per cent to 35.8. In a word, there were in 1860 over 74,000 negro males over 20 years of age who were able to read and write. Such a start was of no slight importance for the events that followed.

The most significant figures, however, are those of the later decades. In 1870 the proportion of negro males over 21 years of age who could not read and write was, for the whole country, 83.5 per cent; in 1900, 47.4. At the end of thirty years it is only a little more than half as great as at the beginning. A steady advance is shown in every division and in almost every State.

How much does this mean? It would seem to mean a great deal. But it must not be forgotten what was the purpose to be accomplished. It was intended that the freedmen should be qualified for citizenship. An immense educational system was instituted with a view to presenting opportunities of learning to every colored child. A network of institutions sprang up covering every part of the South—all new where none of the kind existed before. There are no less than 25,000 public schools for elementary learning, with over 27,000 teachers, nearly 100 public high schools, 20 normal schools and colleges maintained by the government, and over 100 universities, colleges, trade schools, and other institutions supported by private beneficence. With such an outlay it was to be supposed that results would appear.

The fair question is, Are the results such as were to be anticipated? There are now 976,000 negro males of voting age unable to read and write, and this is 114,000 more than the number in 1870. The fact that the per cent of illiterate in the whole country has been reduced to 47.4 may be overrated. Account must be taken of particular portions of the country, particular States and counties. In the two southern divisions the proportion of illiterates is still above 50 per cent. In Alabama it is 59.5, in Louisiana 61.3, and in different counties it is as high as 70, 80, and 85 per cent.

Here, too, may be considered the relative progress of people in the centers and in the rural districts. Table X is similar in form to Table VI, showing the proportion of illiterate male negroes of voting age, (1) in large cities, (2) outside of such cities, and (3) in counties where conditions are most backward.

In this table, as in Table VI, it appears that illiteracy is lowest in the cities and highest in sparsely settled regions. The superiority of schools in cities over those in the country naturally tends to such a result. In the 160 cities of 25,000 inhabitants and upward the proportion of illiterates is 24.2 per cent, outside of them 51.9, and in rural counties much higher.

In cities of the North the proportion of negroes who can not read and write is comparatively small. This is shown in Table XI, which gives the figures for 50 large cities having a considerable negro element. In Chicago the per cent is 5.5 (less than that of whites in the cities of the North Atlantic States as given in Table VI), in Boston 5.7, in New York 6.9, in Philadelphia 10.9. In Southern cities the rate is higher, rising from 20 to 46 per cent. But this is moderate compared with conditions in hundreds of rural counties. In Virginia there are 40 counties in which the per cent is 60 and upward; in Alabama there are 28 such counties; in Louisiana 40, in Georgia 58. The proportion in Franklin County, Va., is 72.3, in Macon County, Ga., 72.1, in Morgan County, Tenn., 76.8, in Lafayette, La., 85.6. What a contrast between less than 6 per cent and over 60 per cent.

The general movement of the people from the country to the city is shared by the negroes, as might have been expected. Certain phases of this movement, however, are an interesting study. Table XI shows the total negro population of the 50 cities at the four decades, 1900, 1890, 1880, 1870, with the increase in thirty years. In 1870 the total of all the 50 was 406,238, in 1900 1,053,941, an increase of 647,703. The increase from 1870 to 1880 was 145,863, from 1880 to 1890 234,488, from 1890 to 1900 267,352. Of the 50 cities, 30 are in the North and in the border territory of Maryland, the District of Columbia, Kentucky, and Missouri, while 20 are in the more southern States. In 1870 the 30 northerly cities contained 201,265 and the 20 Southern 204,973, the number in the latter being greater by 3,708. In 1900 the northerly cities have 608,070, and the Southern 455,871, the number in the former being now 153,199 greater than in the latter. From 1870 to 1880 the Southern cities increased in negro population from 204,973 to 251,470—a gain of 46,497. The Northern increased from 201,265 to 300,631—a gain of 99,366. From 1880 to 1890 the Southern cities increased from 251,470 to 375,267—a gain of 123,797. The Northern increased from 300,631 to 411,322—a gain of 110,691. From 1890 to 1900 the Southern cities increased from 375,267 to 455,871—a gain of 80,604, while the Northern increased from 411,322 to 577,870—a gain of 166,548. This shows that, while there has been a movement to both Southern and Northern cities going on constantly during the last thirty years, this movement is turning especially to the North of late and tending to increase in this direction. This is especially true of a few of the larger cities. There are 14 cities, Washington, Baltimore, Philadelphia, New York, St. Louis, Chicago, Pittsburg, Boston, Cleveland, Cincinnati, Columbus, Indianapolis, Louisville, and Kansas City, in which the increase of the negro population during the last ten years has been over 140,000.

Most of the increase in Southern cities during this decade has been in New Orleans, Memphis, Savannah, and Atlanta, aggregating for the four cities 52,700. In Richmond there has been no increase; in Charleston only 552, and in Nashville 662.

Table XII gives the number of negroes in 200 places containing the largest negro population, arranged in the order of their numbers. Of these places 52 are in the North and in the border States, and 148 farther south. The 52 places contain 664,346 negroes, and the 148 contain 915,055. This shows to what an extent, even in the smaller cities, the negroes are finding their homes in the North.

Taking these figures in connection with those of illiteracy, indicating the greater intelligence of negroes in these Northern cities, the evidence seems to prove that the more intelligent and better educated negroes are leaving the South, especially the rural parts, for these cities of the North.

What is the explanation of such a fact as this? It is noticeable that the great schools for the education of negroes which have been built up and maintained since the civil war are most of them in cities. These have continually attracted the more promising and ambitious young negroes from all the country around and habituated them to such a manner of life as prevails in the city. It has been understood, indeed, that their education was designed to prepare them for usefulness in all fields. But the kind of education given, and the tastes cultivated by the predominant influences about them, have been such as to make any thought of return to the plantation and the cabin far from agreeable.

And when there has been a disposition to return, the way has not been made easy. No provision has been found for support in the callings for which they have had their long training. So they have felt obliged to take up such occupations as could be had in the city.

With the passing of time the negro people of Southern cities have come to enjoy many privileges from which those in the country are debarred. Their public

schools, as well as the higher institutions, have improved. Fine church buildings have been erected, and with an educated ministry have greatly increased their attractiveness to persons of intelligence. Societies, lodges, and clubs have multiplied, and to a people naturally gregarious the fondness for social pleasures is gratified in ways without number.

Hence the likelihood of the city trained negroes going into the country to live is growing less. But with increasing numbers of the educated their chances of lucrative employment become few. Then comes the suggestion of going to the Northern cities, and many respond.

The results of this movement can hardly be regarded as satisfactory to those involved. Some few are fairly prosperous, but the condition of the negroes in these Northern cities is generally disappointing. Huddled together in the poorest tenement houses, preyed upon by the vicious and criminal, environed by poverty and disease, they might well envy the pure air, the independence, and the vigorous health of a plantation worker in his isolated cabin.

The saddest aspect of the case, however, is the loss of these educated negroes to their own people, who are in greatest need of their intelligence. The multitudes who have not been admitted to the privileges of good schools require the presence among them of scholars and cultivated men and women. The institutions of education have been maintained with this end in view. There has been the supposition that everyone with a thorough intellectual training would find his most promising field for a life of usefulness and honor among the less fortunate of his own race, and that through the enlightening power of such the wide wastes of gnorance would be reclaimed. It was not dreamed of that the people would be left to their destitution while their expected leaders betook themselves to Chicago, Boston, New York, and Philadelphia. In this manner the scholar's opportunity for himself and for his race alike seems to have been lost.

A mode of education which shows these results must be in some way defective. What is the corrective? It is not easy to say. The suggestion may be ventured that more attention be given directly to the negroes in the country, and that school advantages be provided such as will promote their welfare where they now live. For the negro, as well as for his white neighbor, the problem of the hour seems to be that of the rural school.

TABLE I.—*Distribution of the population of the United States by race elements—States and Territories in the order of percentage of each element to the whole population, 1900.*

	1. Total white population.		2. Native white of native parents.		3. White of foreign parents.		4. Negroes.		5. Indians.	
	State.	Per cent of total population.	State.	Per cent of total population.	State.	Per cent of total population.	State.	Per cent of total population.	State.	Per cent of total population.
1	Mississippi	41.3	North Dakota	20.6	North Carolina	0.6	Alaska		Hawaii	
2	South Carolina	41.6	Minnesota	24.3	South Carolina	1.3	North Dakota	0.1	Maryland	0.0002
3	Hawaii	43.4	Hawaii	24.6	Georgia	1.7	South Dakota	.1	Illinois	.0003
4	Alaska	48.0	Alaska	27.5	Mississippi	1.7	Wisconsin	.1	Georgia	.0008
5	Louisiana	52.8	Wisconsin	28.3	Alabama	2.4	Hawaii	.2	Ohio	.001
6	Georgia	53.3	Rhode Island	33.8	Virginia	2.8	Idaho	.2	Vermont	.001
7	Alabama	54.7	South Dakota	33.9	Tennessee	2.9	Maine	.2	West Virginia	.001
8	Florida	56.3	Nevada	35.7	Arkansas	3.6	New Hampshire	.2	New Jersey	.003
9	Virginia	64.3	Arizona	36.5	Indian Territory	3.8	Utah	.2	Delaware	.004
10	North Carolina	66.7	Massachusetts	36.8	West Virginia	7.5	Vermont	.2	Kentucky	.004
11	District of Columbia	68.7	Utah	37.6	Florida	8.2	Minnesota	.3	Missouri	.004
12	Arkansas	72.0	Montana	38.2	Kentucky	8.8	Nevada	.3	Arkansas	.005
13	Arizona	75.6	New York	39.2	Louisiana	11.5	Oregon	.3	New Hampshire	.005
14	Tennessee	76.2	Mississippi	39.6	Oklahoma	13.5	Washington	.5	Tennessee	.005
15	Indian Territory	77.2	South Carolina	40.3	Texas	15.3	Iowa	.6	District of Columbia	.007
16	Texas	79.6	Connecticut	41.0	New Mexico	16.0	Montana	.6	Rhode Island	.008
17	Maryland	80.2	Louisiana	41.3	Hawaii	18.8	Nebraska	.6	Indiana	.009
18	Delaware	83.4	Michigan	42.4	Delaware	19.5	California	.7	Alabama	.009
19	Nevada	83.6	California	43.4	Indiana	20.1	Michigan	.7	South Carolina	.009
20	Kentucky	86.7	New Jersey	43.9	Alaska	20.5	New Mexico	.8	Connecticut	.01
21	New Mexico	92.3	Illinois	47.1	District of Columbia	20.6	Wyoming	1.0	Iowa	.01
22	Oklahoma	92.3	District of Columbia	48.1	Maryland	23.0	Massachusetts	1.2	Texas	.01
23	Montana	93.0	Florida	48.1	Missouri	23.8	New York	1.4	Virginia	.01
24	California	94.5	Washington	51.2	Kansas	27.4	Arizona	1.5	Massachusetts	.02
25	Missouri	94.8	Georgia	51.6	Maine	28.7	Colorado	1.6	Pennsylvania	.02
26	South Dakota	94.8	Wyoming	51.8	Oregon	33.5	Connecticut	1.7	Louisiana	.04
27	Oregon	95.4	Nebraska	51.9	Ohio	33.9	Illinois	1.8	Florida	.06
28	Idaho	95.5	Alabama	52.3	Vermont	34.1	Rhode Island	2.1	New York	.07
29	West Virginia	95.5	Idaho	55.6	Pennsylvania	38.3	Indiana	2.3	Kansas	.1
30	Washington	95.8	Iowa	56.5	Arizona	39.1	Ohio	2.3	Maine	.1

TABLE I.—*Distribution of the population of the United States by race elements—States and Territories in the order of percentage of each element to the whole population, 1900*—Continued.

	1. Total white population.		2. Native white of native parents.		3. White of foreign parents.		4. Negroes.		5. Indians.	
	State.	Per cent of total population.	State.	Per cent of total population.	State.	Per cent of total population.	State.	Per cent of total population.	State.	Per cent of total population.
31	New Jersey	96.2	Maryland	57.2	Idaho	39.6	Pennsylvania	2.5	Mississippi	0.1
32	Wyoming	96.2	Colorado	57.7	Colorado	40.3	Kansas	3.5	Colorado	.2
33	Kansas	96.3	New Hampshire	58.9	New Hampshire	40.9	New Jersey	3.7	Michigan	.2
34	Pennsylvania	97.5	Pennsylvania	59.2	Iowa	42.9	West Virginia	4.5	Nebraska	.3
35	Indiana	97.7	Virginia	61.5	Wyoming	44.4	Oklahoma	4.7	North Carolina	.3
36	North Dakota	97.7	Oregon	61.9	Washington	44.6	Missouri	5.2	Wisconsin	.4
37	Ohio	97.7	Ohio	63.8	Nebraska	47.2	Indian Territory	9.4	Minnesota	.5
38	Rhode Island	97.8	Delaware	63.9	Nevada	47.9	Kentucky	13.3	Utah	.9
39	Colorado	98.0	Texas	64.3	California	51.1	Delaware	16.6	California	1.0
40	Connecticut	98.2	Vermont	65.6	Illinois	51.1	Maryland	19.8	Oregon	1.1
41	Illinois	98.2	North Carolina	66.1	New Jersey	52.3	Texas	20.4	Wyoming	1.8
42	New York	98.5	Arkansas	68.4	Montana	54.8	Tennessee	23.8	Washington	1.9
43	Utah	98.5	Kansas	68.9	Michigan	55.7	Arkansas	28.0	North Dakota	2.1
44	Massachusetts	98.7	Maine	71.0	Connecticut	57.2	District of Columbia	31.1	Idaho	2.6
45	Michigan	99.1	Missouri	71.0	New York	59.3	North Carolina	33.0	Oklahoma	2.9
46	Nebraska	99.1	Tennessee	73.3	South Dakota	60.9	Virginia	35.6	Montana	4.6
47	Minnesota	99.2	Indian Territory	73.4	Utah	60.9	Florida	43.6	South Dakota	5.0
48	Iowa	99.4	New Mexico	76.3	Massachusetts	61.9	Alabama	45.2	New Mexico	6.7
49	Wisconsin	99.5	Indiana	77.6	Rhode Island	64.0	Georgia	46.7	Nevada	12.3
50	Maine	99.7	Kentucky	77.9	Wisconsin	71.2	Louisiana	47.1	Indian Territory	13.3
51	Vermont	99.7	Oklahoma	78.8	Minnesota	74.9	South Carolina	58.4	Arizona	21.5
52	New Hampshire	99.8	West Virginia	88.0	North Dakota	77.1	Mississippi	58.5	Alaska	46.4

TABLE II.—*Illiteracy of males of voting age (21 years and upward) classified according to race elements—States and Territories arranged in the order of percentage of illiteracy, 1900*—Continued.

	1. Aggregate males of voting age.		2. Native white of native parents.		3. White of foreign parents.		4. Negroes.		5. Indians.	
	State.	Per cent of illiteracy.	State.	Per cent of illiteracy.	State.	Per cent of illiteracy.	State.	Per cent of illiteracy.	State.	Per cent of illiteracy.
31	Rhode Island	9.2	Illinois	3.6	Wisconsin	6.1	District of Columbia	26.1	North Carolina	58.9
32	Maryland	12.5	Ohio	3.7	Mississippi	6.4	Indiana	27.7	Alabama	60.5
33	Nevada	12.8	Indiana	4.8	Virginia	7.0	Kansas	28.1	Oregon	63.7
34	West Virginia	12.9	Texas	5.3	Michigan	7.3	Hawaii	31.2	Oklahoma	65.9
35	Delaware	14.0	Hawaii	5.9	Florida	7.4	Missouri	31.9	Minnesota	67.0
36	Texas	15.4	Maryland	5.9	New York	8.0	Oklahoma	32.0	Montana	68.5
37	Indian Territory	15.9	Missouri	6.3	New Jersey	8.9	West Virginia	37.8	Washington	69.8
38	Kentucky	18.8	Delaware	8.0	Massachusetts	9.7	Florida	39.4	District of Columbia	70.0
39	Arkansas	20.0	Mississippi	8.3	Delaware	10.3	Maryland	40.5	North Dakota	70.7
40	Tennessee	21.7	Florida	8.6	Connecticut	10.6	Indian Territory	41.3	Mississippi	73.8
41	Florida	22.1	Arkansas	10.8	Indian Territory	11.1	Delaware	42.7	California	75.9
42	Arizona	23.9	Indian Territory	10.9	West Virginia	12.3	Arkansas	44.8	Louisiana	76.4
43	Virginia	25.3	West Virginia	11.2	Louisiana	13.0	Texas	45.1	Arizona	80.5
44	Alaska	28.3	Georgia	12.1	Pennsylvania	13.0	Tennessee	47.6	Idaho	81.0
45	New Mexico	28.8	Virginia	12.5	Rhode Island	13.4	Kentucky	49.5	Wyoming	81.5
46	North Carolina	29.4	South Carolina	12.6	Vermont	17.1	Virginia	52.5	Utah	84.4
47	Georgia	31.6	Alabama	14.2	Maine	17.8	North Carolina	53.1	Colorado	88.2
48	Alabama	33.7	Tennessee	14.5	New Hampshire	18.7	Mississippi	53.2	Iowa	89.0
49	Mississippi	33.8	Kentucky	15.5	Texas	19.5	South Carolina	54.7	Nevada	89.0
50	Hawaii	34.4	North Carolina	19.0	Arizona	22.6	Georgia	56.4	Florida	89.5
51	South Carolina	35.1	Louisiana	20.3	New Mexico	25.0	Alabama	59.5	Alaska	89.7
52	Louisiana	37.6	New Mexico	24.5	Hawaii	32.2	Louisiana	61.3	New Mexico	91.7

TABLE III.—*White males of voting age (21 years and upward), with percentage unable to read and write, classified as (1) native of native parents, (2) native of foreign parents, and (3) foreign born, by States and Territories, arranged geographically, 1900.*

State or Territory.	1. Native white of native parents.			2. Native white of foreign parents.			3. Foreign-born white.		
	Total.	Illiterate.	Per cent.	Total.	Illiterate.	Per cent.	Total.	Illiterate.	Per cent.
The United States..	10,569,743	618,606	5.9	3,444,684	68,975	2.0	4,904,270	562,316	11.5
North Atlantic Division.	2,760,103	57,767	2.1	1,257,195	24,085	1.9	2,108,698	320,189	15.2
Maine	157,377	3,420	2.2	20,964	2,089	10.0	38,515	8,223	21.4
New Hampshire	82,383	1,189	1.4	13,496	706	5.2	34,769	8,333	24.0
Vermont	68,857	1,759	2.6	18,324	1,858	10.1	20,846	4,862	23.3
Massachusetts	320,943	1,927	.6	165,584	2,422	1.5	343,522	47,436	13.8
Rhode Island	44,893	550	1.2	25,340	841	3.3	53,768	9,795	18.2
Connecticut	113,768	1,040	.9	54,955	663	1.2	106,403	16,562	15.6
New York	782,487	15,201	1.9	533,096	8,240	1.5	829,474	100,776	12.1
New Jersey	224,644	6,370	2.8	111,508	1,285	1.2	196,598	26,300	13.4
Pennsylvania	964,751	26,311	2.7	313,928	5,981	1.9	454,808	97,902	20.2
South Atlantic Division..	1,466,826	178,564	12.2	105,484	2,555	2.4	104,183	11,768	11.3
Delaware	33,270	2,666	8.0	5,575	93	1.7	6,747	1,186	17.6
Maryland	172,003	10,191	5.9	46,965	1,006	2.1	42,011	4,481	10.7
District of Columbia	39,557	391	1.0	11,161	75	.7	9,600	478	5.0
Virginia	280,881	35,057	12.5	9,413	270	2.9	11,085	1,166	10.5
West Virginia	205,216	23,024	11.2	15,035	553	3.7	12,878	2,895	22.5
North Carolina	284,601	54,208	19.0	2,211	126	5.7	2,451	140	5.7
South Carolina	124,097	15,643	12.6	3,239	68	2.1	2,979	154	5.2
Georgia	263,929	31,914	12.1	6,860	168	2.4	6,707	376	5.6
Florida	63,272	5,470	8.6	4,965	196	3.9	9,725	892	9.2
South Central Division ..	2,055,858	237,239	11.5	176,686	9,946	5.6	178,376	33,566	18.8
Kentucky	402,244	62,182	15.5	41,823	1,166	2.8	25,139	2,169	8.6
Tennessee	353,621	51,244	14.5	11,916	444	3.7	9,509	730	7.7
Alabama	216,950	30,680	14.2	8,162	286	3.5	8,082	648	8.0
Mississippi	140,005	11,613	8.3	5,750	233	4.1	4,715	447	9.5
Louisiana	121,356	24,681	20.3	31,182	1,120	3.6	25,340	6,238	24.6
Texas	458,863	24,180	5.3	55,325	5,837	10.6	85,773	21,773	25.4
Indian Territory	71,736	7,792	10.9	3,186	192	6.0	2,943	493	16.8
Oklahoma	82,956	2,321	2.8	9,990	219	2.2	8,597	540	6.3
Arkansas	208,967	22,546	10.8	9,352	449	4.8	8,278	528	6.4
North Central Division ..	3,656,263	127,480	3.5	1,640,913	28,675	1.8	2,074,626	163,161	7.9
Ohio	697,956	25,476	3.7	256,955	4,688	1.8	225,688	21,605	9.6
Indiana	517,446	24,937	4.8	111,228	2,944	2.6	73,087	7,022	9.6
Illinois	586,773	20,852	3.6	316,313	4,139	1.3	467,123	36,608	7.8
Michigan	288,293	6,406	2.2	162,537	4,413	2.7	261,415	26,693	10.2
Wisconsin	116,943	1,744	1.5	192,966	4,022	2.1	257,394	23,893	9.3
Minnesota	104,577	737	.7	137,054	1,766	1.3	260,753	16,720	6.4
Iowa	321,513	5,944	1.8	151,246	1,791	1.2	157,906	8,246	5.2
Missouri	551,438	34,723	6.3	145,876	3,021	2.1	112,483	7,666	6.8
North Dakota	19,777	153	.8	17,902	220	1.2	55,558	3,507	6.3
South Dakota	35,381	219	.6	26,526	259	1.0	45,446	2,215	3.4
Nebraska	147,508	1,629	1.1	59,384	535	.9	90,925	4,677	5.1
Kansas	268,698	4,660	1.7	62,926	877	1.4	68,938	4,309	6.4
Western Division	630,663	17,556	2.8	264,406	3,714	1.4	438,387	33,632	7.7
Montana	35,130	237	.7	19,760	186	.9	39,983	2,675	6.7
Wyoming	18,012	166	.9	7,639	46	.6	10,611	828	7.8
Colorado	99,563	2,834	2.8	30,891	361	1.2	51,102	3,652	7.1
New Mexico	39,171	9,589	24.5	4,382	671	15.3	7,251	2,244	30.9
Arizona	16,183	526	3.3	6,567	491	7.5	12,161	3,759	30.9
Utah	18,321	290	1.6	22,478	200	.9	24,406	1,129	4.6
Nevada	5,431	44	.8	3,424	25	.7	5,797	406	7.0
Idaho	25,786	289	1.1	11,051	108	1.0	13,491	770	5.7
Washington	92,262	460	.5	29,902	169	.6	61,745	2,413	3.9
Oregon	79,220	881	1.1	20,555	198	1.0	31,486	1,081	3.4
California	201,584	2,240	1.1	107,667	1,261	1.2	180,294	14,675	8.1

TABLE IV.—*White males of voting age (21 years and upward), with percentage unable to read and write, in cities of 25,000 inhabitants and upward, classified as (1) native of native parents, (2) native of foreign parents, and (3) foreign born, by States and Territories, arranged geographically, 1900.*

State or Territory.	Number of cities.	1. Native white of native parents.			2. Native white of foreign parents.			3. Foreign-born white.		
		Total.	Illiterate.	Per cent.	Total.	Illiterate.	Per cent.	Total.	Illiterate.	Per cent.
The United States.	160	1,803,367	14,520	0.8	1,425,149	10,022	0.7	2,274,889	222,938	9.8
North Atlantic Division.	70	834,256	5,090	.6	738,810	5,110	.7	1,313,597	156,257	11.9
Maine	1	8,798	24	2.7	2,469	29	1.2	4,049	526	13.0
New Hampshire	1	4,880	21	.4	2,364	65	2.8	8,106	1,493	18.4
Vermont	0									
Massachusetts	20	150,064	461	.3	101,577	340	.9	225,823	27,283	12.1
Rhode Island	3	20,875	122	.6	16,255	372	2.3	32,589	5,091	15.6
Connecticut	5	31,632	67	.2	23,602	100	.4	45,000	5,727	12.7
New York	12	269,295	1,103	.4	357,731	1,953	.6	648,326	72,041	11.1
New Jersey	10	71,393	691	1.0	66,370	539	.8	115,531	13,769	11.9
Pennsylvania	18	277,323	2,601	.9	168,352	1,712	1.0	234,173	30,327	13.0
South Atlantic Division.	11	159,835	2,541	1.6	58,534	677	1.2	54,153	5,001	9.2
Delaware	1	11,227	196	1.7	3,962	53	1.3	4,989	963	19.3
Maryland	1	57,502	835	1.5	31,997	426	1.3	29,515	2,921	9.9
District of Columbia	1	30,557	391	1.0	11,161	75	.7	9,600	478	5.0
Virginia	2	18,237	395	2.2	2,471	23	.9	2,259	128	5.7
West Virginia	1	4,253	87	2.0	3,986	74	1.9	2,521	224	8.9
North Carolina	0									
South Carolina	1	3,903	34	.9	1,364	6	.4	1,229	48	3.9
Georgia	3	22,326	584	2.6	3,225	18	.6	3,494	210	6.0
Florida	1	2,830	19	.7	368	2	.5	546	29	5.3
South Central Division.	18	190,235	2,550	1.3	68,278	995	1.5	49,816	4,794	9.6
Kentucky	4	30,940	679	2.2	24,864	299	1.2	14,878	1,089	7.3
Tennessee	4	32,620	895	2.7	6,484	79	1.1	5,126	353	6.9
Alabama	3	12,020	120	.1	3,093	19	.6	2,379	164	6.1
Mississippi	0									
Louisiana	1	18,910	330	1.8	22,699	304	1.3	13,603	2,004	14.7
Texas	5	90,566	332	.3	9,957	198	2.0	12,725	1,139	9.0
Indian Territory	0									
Oklahoma	0									
Arkansas	1	5,179	164	3.1	1,181	6	.5	1,105	45	4.1
North Central Division.	49	544,583	4,017	.7	478,696	2,994	.6	725,321	51,090	7.0
Ohio	9	116,094	1,154	1.0	104,305	722	.7	120,625	10,638	8.8
Indiana	5	50,070	839	1.7	25,021	289	1.2	19,910	1,640	8.2
Illinois	7	124,462	392	.3	136,919	512	.4	291,823	20,778	7.1
Michigan	5	33,034	204	.6	34,226	295	.9	61,823	4,850	7.9
Wisconsin	5	14,844	32	.2	36,249	179	.5	58,049	3,988	6.9
Minnesota	3	35,357	74	.2	32,519	170	.5	63,877	2,914	4.6
Iowa	6	28,766	239	.8	17,268	124	.7	18,316	680	3.7
Missouri	4	101,282	880	.9	77,523	644	.8	69,134	4,496	6.5
North Dakota	0									
South Dakota	0									
Nebraska	3	27,342	66	.2	10,812	27	.2	16,899	742	4.4
Kansas	2	13,332	137	1.0	3,854	32	.8	4,865	364	7.5
Western Division	12	134,458	322	.2	80,831	246	.3	132,002	5,796	4.4
Montana	1	3,646	8	.2	3,350	9	.3	6,003	239	4.0
Wyoming	0									
Colorado	2	20,344	81	.3	9,846	38	.4	14,537	963	6.8
New Mexico	0									
Arizona	0									
Utah	1	4,203	18	.4	3,997	15	.4	5,117	142	2.8
Nevada	0									
Idaho	0									
Washington	3	32,268	40	.1	10,355	28	.3	21,371	895	4.2
Oregon	1	13,886	20	.1	6,312	15	.2	9,696	271	2.8
California	4	54,111	155	.3	46,971	141	.3	75,338	3,256	4.3

TABLE V.—*White males (21 years of age and upward), with percentage unable to read and write, classified as (1) native of native parents, (2) native of foreign parents, (3) foreign born for the United States, for the North and West, and for the South, 1900.*

Location.	Number of cities.	1. Native of native parents.			2. Native of foreign parents.			3. Foreign born.		
		Total.	Illiterate.	Per cent.	Total.	Illiterate.	Per cent.	Total.	Illiterate.	Per cent.
In all quarters:										
The United States	.....	10,569,743	618,606	5.9	3,444,084	68,975	2.0	4,904,270	562,316	11.5
The North and West	.....	7,047,059	202,803	2.9	3,163,514	56,474	1.8	4,621,711	516,982	11.2
The South	.....	3,522,684	415,803	11.8	281,170	12,501	4.4	282,559	45,334	16.0
In cities of 25,000 and over:										
The United States	160	1,863,367	14,520	.8	1,425,149	10,022	.7	2,274,889	222,938	9.8
The North and West	131	1,513,297	9,429	.6	1,298,337	8,350	.6	2,170,920	213,140	9.8
The South	29	350,070	5,091	1.5	126,812	1,672	1.3	103,969	9,798	9.5
In cities of 4,000 and over:										
The United States	1,158	2,683,248	20,909	.8	2,052,215	14,432	.7	3,275,840	321,031	9.8
The North and West	951	2,114,735	12,642	.6	1,846,273	11,717	.6	3,107,595	305,124	9.8
The South	207	568,513	8,267	1.5	205,942	2,715	1.3	168,245	15,907	9.5
Outside of cities of 25,000 and over:										
The United States	.....	8,706,376	604,086	6.9	2,019,535	58,953	2.9	2,629,381	330,378	12.5
The North and West	.....	5,533,762	193,374	3.5	1,865,177	48,124	2.5	2,450,791	303,842	12.4
The South	.....	3,172,614	410,712	12.9	154,358	10,829	7.0	178,590	35,536	19.9
Outside of cities of 4,000 and over:										
The United States	.....	7,886,495	597,697	7.6	1,392,469	54,543	3.9	1,628,430	241,285	14.8
The North and West	.....	4,932,324	190,161	3.9	1,317,241	44,757	3.4	1,514,116	211,858	13.9
The South	.....	2,954,171	407,536	13.9	75,228	9,788	13.0	114,314	29,427	25.7

TABLE VI.—*White males of voting age, with proportion unable to read and write, (1) in cities of 25,000 inhabitants and upward, (2) outside of such cities, and (3) in selected rural counties, by States and Territories, arranged geographically 1900.*

	Number of cities.	1. In cities of 25,000 and upward.			2. Outside of cities of 25,000 and upward.			3. In selected rural counties.			
		Total.	Illiterate.	Per cent.	Total.	Illiterate.	Per cent.	Single counties in the several States.	Total.	Illiterate.	Per cent.
United States	160	5,504,330	247,895	4.5	13,389,416	994,688	7.4				
North Atlantic Division	70	2,886,962	167,052	5.8	3,239,034	234,989	7.3				
Maine	1	15,312	579	3.8	201,544	13,152	6.5	Aroostook	16,271	3,755	23.1
New Hampshire	1	15,350	1,579	10.2	115,208	8,649	7.5	Coos	9,504	1,251	13.2
Vermont	0				108,027	8,479	7.8	Franklin	8,816	1,179	13.4
Massachusetts	20	477,503	28,659	6.0	352,546	23,106	6.6	Dukes	1,440	126	8.8
Rhode Island	3	69,719	5,585	8.0	54,382	5,601	10.3	Kent	8,448	1,210	14.3
Connecticut	5	100,324	5,894	5.9	174,802	12,371	7.0	Windham	13,701	2,016	14.6
New York	12	1,275,332	75,097	5.9	869,725	49,120	5.6	Clinton	13,601	3,345	24.6
New Jersey	10	253,294	14,999	5.9	279,456	18,956	6.8	Middlesex	24,911	2,581	10.3
Pennsylvania	18	680,128	34,640	5.1	1,083,354	95,554	8.8	Luzerne	70,171	14,020	20.0
South Atlantic Division	11	272,522	8,219	3.0	1,381,020	177,354	12.8				
Delaware	1	20,178	1,212	6.0	25,414	2,733	10.8	Sussex	9,824	1,494	15.2
Maryland	1	119,014	4,184	3.5	119,014	4,182	8.1	Worcester	3,751	741	19.7
District of Columbia	1	60,318	944	1.6							
Virginia	2	22,967	546	2.4	278,412	35,947	12.9	Buchanan	1,957	696	35.6
West Virginia	1	10,709	385	3.6	222,309	26,087	11.7	Logan	1,475	405	27.5
North Carolina	0				289,263	54,474	18.8	Stokes	3,607	1,174	32.5
South Carolina	1	6,496	88	1.4	123,879	15,777	12.7	Chesterfield	2,681	702	26.2
Georgia	3	29,045	812	2.8	248,451	31,646	12.7	Dawson	1,040	227	21.8
Florida	1	3,744	50	1.3	74,218	6,508	8.8	Holmes	1,389	357	25.7
South Central Division	18	243,568	8,379	3.4	2,167,352	272,372	12.6				
Kentucky	4	70,682	2,067	2.9	398,524	63,450	15.9	Pike	4,462	1,432	32.1
Tennessee	4	44,230	1,327	3.0	330,816	51,091	15.4	Carter	3,588	989	27.6
Alabama	3	17,505	303	1.7	214,789	31,311	14.1	Cleburne	2,644	595	22.5
Mississippi	0				150,539	12,253	8.2	Hancock	1,892	387	20.4
Louisiana	1	55,212	2,788	5.0	122,605	29,251	23.8	Vermilion	3,494	1,768	50.6
Texas	5	48,468	1,679	3.5	551,403	50,111	9.1	Hidalgo	1,522	808	53.1
Indian Territory	0				77,865	8,477	10.9	Choctaw Nation	20,132	2,841	14.1
Oklahoma	0				101,543	8,080	8.0	Pottawatomie	6,046	385	6.3
Arkansas	1	7,471	215	2.9	219,126	23,308	10.6	Randolph	3,898	780	20.0

North Central Division	49	1,755,814	58,212	3.3	5,616,018	261,104	4.6			
Ohio	9	541,624	12,514	3.7	839,575	39,255	4.7	Lawrence	9,339	1,368	14.9
Indiana	5	95,001	2,768	2.9	606,709	32,135	5.3	Brown	2,338	341	14.5
Illinois	7	590,418	21,793	3.9	869,701	39,805	4.9	Hardin	1,723	327	18.9
Michigan	5	129,083	5,349	4.1	583,162	32,103	5.5	Dickinson	5,554	780	14.0
Wisconsin	5	108,142	4,199	3.9	458,071	25,469	5.6	Portage	7,189	998	13.9
Minnesota	3	131,753	3,158	2.4	370,631	16,095	4.3	Benton	2,320	170	7.3
Iowa	6	64,350	1,043	1.6	595,315	14,938	2.6	Mills	4,568	224	4.1
Missouri	4	247,939	6,020	2.4	561,858	39,800	7.0	Washington	3,257	756	23.2
North Dakota	0				93,237	3,880	4.2	Stark	2,163	316	14.6
South Dakota	0				107,353	2,693	2.5	Union	3,154	132	4.2
Nebraska	3	55,053	835	1.5	242,764	6,006	2.5	Richardson	5,387	132	2.4
Kansas	2	22,051	533	2.4	376,501	9,313	2.5	Ellis	1,904	180	9.5
Western Division	12	347,464	6,033	1.7	985,992	48,869	5.0				
Montana	1	12,990	256	2.0	81,874	2,842	3.5	Missoula	5,298	448	8.5
Wyoming	0				36,262	1,040	2.9	Unita	3,709	466	12.3
Colorado	2	50,727	1,112	2.2	130,889	5,735	4.4	Huerfano	2,269	698	30.8
New Mexico	0				50,804	12,504	24.6	Donna Ana	2,818	1,163	41.3
Arizona	0				34,911	4,776	13.7	Santa Cruz	1,347	412	30.6
Utah	1	13,317	175	1.3	51,888	1,444	2.8	Boxelder	2,229	85	3.8
Nevada	0				14,652	475	3.2	Washoe	3,389	265	7.8
Idaho	0				50,328	1,165	2.3	Boise	2,019	200	9.9
Washington	3	64,167	632	1.0	119,832	2,410	2.0	Adams	1,529	45	2.9
Oregon	1	20,834	306	1.0	101,427	1,854	1.8	Union	5,303	163	3.1
California	4	176,429	3,552	2.0	313,125	14,624	4.6	Ventura	4,959	459	9.3

TABLE VII.—*Counties in the several States in which the percentage of white males of voting age, native and foreign, who can not read and write, is 20 and upward.*

	Total.	Illiterate.	Per cent.
MAINE.			
Aroostook	16,271	3,755	23.1
NEW YORK.			
Clinton	13,602	3,345	24.6
PENNSYLVANIA.			
Luzerne	70,171	14,029	20.0
VIRGINIA.			
Pittsylvania	5,859	1,185	20.2
Smyth	3,755	770	20.6
Wythe	4,016	845	21.0
Washington	5,981	1,275	21.2
Gloucester	1,524	346	22.7
Carroll	3,908	905	23.2
Franklin	4,119	975	23.6
Lee	4,003	961	24.0
Stafford	1,636	397	24.2
Scott	4,787	1,193	24.9
Dickenson	1,521	380	25.0
Russell	3,817	1,003	26.2
Patrick	2,923	914	31.2
Greene	1,058	331	31.3
Buchanan	1,957	696	35.6
WEST VIRGINIA.			
McDowell	3,709	747	20.2
Wyoming	1,710	375	21.9
Boone	1,725	449	26.0
Lincoln	3,336	868	26.0
Mingo	2,617	698	26.7
Logan	1,475	405	27.5
NORTH CAROLINA.			
Hertford	1,441	290	20.1
Rockingham	4,903	988	20.2
Macon	2,328	479	20.6
Onslow	2,045	426	20.8
Lenoir	2,609	545	20.9
Montgomery	2,412	507	21.0
Dare	1,072	227	21.2
Harnett	2,430	517	21.2
Ashe	3,847	823	21.3
Davie	2,184	467	21.4
Martin	1,907	409	21.4
Davidson	4,515	975	21.5
Pitt	3,792	816	21.5
Watauga	2,689	579	21.5
Caldwell	2,993	646	21.8
Stanly	2,716	593	21.8
Camden	808	178	22.0
Cleveland	4,333	958	22.1
Tyrrell	850	188	22.1
Burke	3,341	753	22.5
Graham	838	191	22.8
Nash	3,556	814	22.9
Duplin	3,288	758	23.1
Wilson	3,306	765	23.1
Yadkin	2,830	660	23.3
Sampson	3,976	936	23.5
Polk	1,284	303	23.6
Clay	927	220	23.7
Cherokee	2,429	579	23.8
Johnston	5,407	1,296	24.0
Franklin	3,008	746	24.3
Haywood	3,283	802	24.4
Gates	1,290	319	24.7
Swain	1,553	394	25.4
Greene	1,507	386	25.6
Jackson	2,360	609	25.8
Madison	4,074	1,077	26.4
Mitchell	2,980	816	27.4
Person	2,132	603	28.2
Surry	5,019	1,414	28.2
NORTH CAROLINA—cont'd.			
Yancey	2,295	707	30.8
Wilkes	5,081	1,568	30.9
Stokes	3,607	1,174	32.5
SOUTH CAROLINA.			
Horry	3,553	752	21.2
Pickens	3,190	689	21.6
Chesterfield	2,681	702	26.2
GEORGIA.			
Murray	1,733	354	20.4
Twiggs	701	144	20.5
Gilmer	2,104	442	21.0
Miller	798	171	21.4
Rabun	1,234	265	21.5
Dawson	1,040	227	21.8
Paulding	2,493	557	22.3
Glascock	666	149	22.4
Pickens	1,750	395	22.6
Fannin	2,268	535	23.6
Union	1,605	393	23.6
Lumpkin	1,544	410	26.6
FLORIDA.			
Taylor	776	194	25.0
Holmes	1,389	357	25.7
KENTUCKY.			
Lewis	4,477	896	20.0
Grayson	4,471	914	20.4
Menifee	1,478	301	20.4
Marion	3,103	653	20.5
Marshall	2,582	540	20.9
Allen	3,378	720	21.3
Johnson	2,879	614	21.3
Adair	3,084	668	21.6
Rockcastle	2,787	609	21.9
Rowan	1,875	415	22.1
Lawrence	4,180	961	23.0
Butler	3,508	830	23.3
Metcalfe	2,178	514	23.6
Bell	3,220	764	23.7
Carter	4,389	1,046	23.8
Casey	3,365	813	24.2
Wayne	3,079	746	24.2
Lee	1,627	395	24.3
Knox	3,530	861	24.4
Greenup	3,497	859	24.6
Clinton	1,667	421	25.3
Edmonson	2,101	555	26.4
Estill	2,491	657	26.4
Cumberland	1,778	481	27.1
Letcher	1,777	493	27.7
Owsley	1,435	397	27.7
Jackson	2,119	593	28.0
Martin	1,171	338	28.9
Magoffin	2,387	709	29.7
Elliott	2,038	609	29.9
Harlan	1,888	567	30.0
Floyd	3,074	939	30.5
Perry	1,570	493	31.4
Pike	4,462	1,432	32.1
Breathitt	2,748	890	32.4
Clay	2,789	983	35.2
Leslie	1,272	448	35.2
Knott	1,561	559	35.8
TENNESSEE.			
Benton	2,581	526	20.4
Meigs	1,465	307	20.9
Bledsoe	1,377	291	21.1
Polk	2,583	546	21.1
Campbell	3,799	806	21.2
Van Buren	688	147	21.4
Marion	3,523	768	21.5

TABLE VII.—*Counties in the several States in which the percentage of white males of voting age, native and foreign, who can not read and write, is 20 and upward*—Continued.

	Total.	Illiterate.	Per cent.
TENNESSEE—cont'd.			
Scott	2,257	483	21.5
Union	2,818	608	21.6
Clay	1,837	409	22.2
Anderson	3,858	866	22.4
Perry	1,816	407	22.4
Morgan	2,126	476	22.4
Jackson	3,087	702	22.7
Sevier	4,321	980	22.7
Monroe	3,815	871	22.8
Hancock	2,217	514	23.2
Grainger	2,623	804	23.4
Unicoi	1,296	314	24.2
Cocke	3,803	937	24.6
Pickett	1,132	284	25.1
Hawkins	4,757	1,212	25.4
Claiborne	4,326	1,105	25.6
Fentress	1,324	343	25.9
Macon	2,773	719	25.9
Johnson	2,150	573	26.9
Carter	3,588	989	27.6
ALABAMA.			
St. Clair	3,416	688	20.1
Winston	1,905	393	20.6
Franklin	3,038	650	21.0
Chilton	2,908	624	21.5
Covington	2,817	612	21.7
Cherokee	3,913	867	22.2
Cleburne	2,644	595	22.5
Coffee	3,517	844	24.0
MISSISSIPPI.			
Hancock	1,892	387	20.4
LOUISIANA.			
West Baton Rouge	635	136	21.4
Iberville	2,541	640	25.2
Livingston	1,486	377	25.3
Point Coupee	1,620	442	27.3
Plaquemines	1,678	476	28.4
Iberia	3,416	1,049	30.7
St. John the Baptist	1,279	397	31.0
St. Bernard	771	246	31.9
St. James	2,202	712	32.3
St. Mary	3,566	1,224	34.3
Ascension	2,755	950	34.5
Cameron	739	261	35.3
Avoyelles	3,621	1,443	39.9
St. Charles	830	332	40.0
Acadia	4,301	1,786	41.5
Lafayette	2,863	1,192	41.6
St. Landry	5,268	2,305	43.7
St. Martin	1,109	986	47.1
Assumption	2,776	1,313	47.3
Terrebonne	3,282	1,627	49.6
Jefferson	1,511	752	49.8
Lafourche	4,510	2,277	50.5
Vermillion	3,494	1,768	51.2
TEXAS.			
Refugio	285	57	20.0
Zavalla	211	45	21.3
TEXAS—cont'd.			
Wilson	2,889	620	21.5
Uvalde	1,113	257	23.1
Dimmit	303	72	23.8
Live Oak	526	128	24.3
McMullen	268	65	24.3
Bee	1,682	411	24.4
Frio	941	232	24.6
Karnes	1,946	525	27.9
Jeff Davis	323	91	28.2
Atascosa	1,519	452	29.8
El Paso	7,300	2,199	30.1
Valverde	1,449	470	32.4
Brewster	699	229	32.8
Kinney	580	193	33.3
Nueces	2,451	898	36.6
Maverick	1,005	378	37.6
San Patricio	577	227	39.3
Pecos	914	367	40.1
Ward	404	162	40.1
La Salle	587	236	40.2
Reeves	513	211	41.1
Zapata	1,128	484	42.9
Presidio	903	391	43.3
Duval	1,889	862	45.7
Webb	5,841	2,874	49.2
Cameron	3,423	1,721	50.3
Starr	2,593	1,369	52.8
Hidalgo	1,522	808	53.1
ARKANSAS.			
Randolph	3,898	780	20.0
Newton	2,608	527	20.2
MISSOURI.			
Washington	3,257	756	23.2
NEW MEXICO.			
Union	1,268	283	22.3
Taos	2,974	555	22.4
Grant	4,451	1,098	24.6
Sierra	963	247	25.8
Socorro	3,411	981	25.8
San Miguel	5,749	1,749	30.4
ARIZONA.			
Guadalupe	1,344	427	31.8
Valencia	2,712	871	32.1
Mora	2,453	819	33.4
Rio Arriba	3,062	1,113	36.0
Donna Ana	2,818	1,163	41.3
Apache	558	188	33.4
Graham	4,722	1,084	23.0
Pinal	1,658	406	24.5
Pima	3,844	985	25.6
Santa Cruz	1,347	412	30.6
COLORADO.			
Huerfano	2,269	698	30.8

TABLE VIII.—*White males of voting age with per centage unable to read and graphically*

State or Territory.	1900.			1890.			1880.		
	Total.	Illiterate.	Per cent.	Total.	Illiterate.	Per cent.	Total.	Illiterate.	Per cent.
The United States	18,918,607	1,249,897	6.6	15,199,656	1,144,168	7.5	11,344,005	896,659	7.9
North Atlantic Division	6,125,996	402,041	6.6	4,905,161	326,159	6.6	3,881,579	226,656	5.8
Maine	216,856	13,782	6.3	200,600	12,503	6.2	186,659	8,420	4.5
New Hampshire	130,648	10,228	7.8	117,889	9,171	7.8	104,901	5,264	5.0
Vermont	108,027	8,479	7.9	101,309	8,514	8.4	95,307	6,731	7.1
Massachusetts	890,049	51,785	6.2	657,042	40,239	6.1	496,692	30,951	6.2
Rhode Island	124,001	11,186	9.0	97,756	9,427	9.6	75,012	7,157	9.5
Connecticut	275,128	18,295	6.6	220,116	12,389	5.6	178,750	9,501	5.5
New York	2,145,057	124,217	5.8	1,745,418	103,931	6.0	1,388,692	76,745	5.5
New Jersey	532,750	33,955	6.4	388,906	25,697	6.5	249,965	15,902	5.5
Pennsylvania	1,703,482	130,194	7.5	1,426,996	104,228	7.3	1,070,302	65,985	6.2
South Atlantic Division	1,676,493	192,887	11.5	1,338,368	176,913	13.2	1,075,213	161,607	15.0
Delaware	45,502	3,945	8.7	40,007	3,374	8.4	31,002	2,855	9.2
Maryland	280,979	15,678	6.0	218,843	17,118	7.8	183,522	15,152	8.3
District of Columbia	60,318	944	1.6	46,150	991	2.1	31,955	1,350	4.2
Virginia	301,379	36,493	12.1	248,035	34,813	14.0	201,248	31,474	15.3
West Virginia	253,120	28,472	11.4	172,108	21,539	12.5	132,777	19,055	14.4
North Carolina	289,263	54,474	18.8	223,307	47,207	20.2	149,732	44,420	23.4
South Carolina	130,375	15,865	12.2	102,657	15,589	15.0	86,900	13,924	16.0
Georgia	277,496	32,458	11.7	219,004	30,722	14.0	177,987	28,571	16.1
Florida	77,962	6,558	8.4	58,008	5,760	9.9	34,210	4,706	13.8
South Central Division	2,410,920	280,751	11.6	1,773,317	214,904	13.3	1,364,046	200,638	15.4
Kentucky	469,206	65,517	13.9	387,371	60,598	15.6	317,579	54,956	17.3
Tennessee	375,046	52,418	14.0	310,014	50,623	16.3	250,055	46,948	18.8
Alabama	232,204	31,614	13.6	184,059	28,103	15.3	141,461	24,450	17.3
Mississippi	150,530	12,203	8.2	120,611	13,394	11.1	108,254	12,473	11.5
Louisiana	177,878	32,030	18.0	130,748	23,260	17.8	108,810	16,477	15.1
Texas	599,961	51,700	8.6	434,010	43,273	10.0	301,737	33,085	11.0
Indian Territory	77,865	8,477	10.9						
Oklahoma	101,543	3,080	3.0	18,228	423	2.3			
Arkansas	226,507	23,523	10.4	188,206	25,275	13.4	136,150	21,349	15.7
North Central Division	7,371,892	319,316	4.3	6,076,092	338,889	5.6	4,444,525	248,258	5.6
Ohio	1,180,709	51,769	4.4	990,542	53,627	5.4	804,871	40,373	5.0
Indiana	701,761	34,903	5.0	581,987	36,902	6.3	487,698	33,757	6.9
Illinois	1,370,239	61,560	4.5	1,054,493	55,940	5.3	783,161	44,536	5.7
Michigan	712,245	37,512	5.3	611,008	42,288	6.9	461,557	26,330	5.7
Wisconsin	567,213	29,659	5.2	459,893	33,565	7.3	338,952	21,221	6.3
Minnesota	502,384	19,223	3.8	374,027	21,045	5.6	212,399	12,372	5.8
Iowa	630,605	15,981	2.5	517,006	19,981	3.9	413,633	16,302	3.9
Missouri	809,797	45,410	5.6	667,451	47,545	7.1	502,165	40,035	8.0
North Dakota	93,237	3,880	4.2	55,769	2,811	5.0	50,962	1,678	3.3
South Dakota	107,353	2,663	2.5	96,177	3,773	3.5			
Nebraska	297,817	6,841	2.3	297,281	8,723	2.9	128,198	3,836	3.0
Kansas	398,552	9,846	2.5	370,688	11,889	3.2	254,949	7,998	3.1
Western Division	1,333,456	54,902	4.1	1,045,688	61,303	5.9	577,842	49,800	8.6
Montana	94,873	3,008	3.3	61,948	2,616	4.2	19,636	410	2.1
Wyoming	36,282	1,040	2.9	26,650	716	2.8	9,241	160	1.7
Colorado	181,616	6,847	3.8	161,015	7,455	4.6	92,088	3,627	3.9
New Mexico	50,804	12,504	24.6	41,478	13,851	33.4	30,981	14,896	48.1
Arizona	34,911	4,776	13.7	21,160	3,614	17.1	18,046	2,150	11.9
Utah	65,205	1,619	2.5	53,235	2,333	4.4	32,078	2,137	6.7
Nevada	14,652	475	3.2	17,002	887	5.2	25,633	1,173	4.6
Idaho	50,328	1,165	2.3	29,525	1,021	3.5	11,089	319	2.7
Washington	183,999	3,042	1.7	141,464	4,615	3.3	24,251	642	2.6
Oregon	131,261	2,169	1.7	102,113	3,446	3.4	51,696	1,699	3.2
California	489,545	18,176	3.7	380,228	20,769	5.3	262,583	12,615	4.8

write, for seven successive decades, 1840–1900, by States and Territories, geo- arranged.

1870.			1860.[a]			1850.[a]			1840.[a]			Increase, 1840 to 1900.	
Total.	Illiterate.	Per cent.	Total.[a]	Illiterate.[a]	Per cent.	Total.[a]	Illiterate.[a]	Per cent.	Total.[a]	Illiterate.[a]	Per cent	Total.	Illiterate.
8,353,719	748,570	9.0	6,699,579	450,172	6.7	4,755,937	376,883	7.9	3,324,115	304,413	6.2	15,594,582	1,045,484
3,165,488	211,649	6.7	2,662,721	113,206	4.3	2,178,867	90,139	4.1	1,696,950	39,009	2.3	4,429,046	363,041
169,192	6,516	3.9	152,819	4,149	2.7	145,957	3,158	2.2	125,542	1,483	1.2	91,314	12,249
90,834	3,361	3.7	89,094	1,960	2.2	84,737	1,610	1.9	70,399	513	.7	60,249	9,715
90,522	6,867	7.6	84,742	4,328	5.1	82,635	3,489	4.2	76,794	1,280	1.7	31,233	7,199
394,031	30,929	7.9	328,540	16,441	5.0	269,316	11,218	4.2	199,239	1,812	.9	630,810	49,973
57,312	5,922	10.3	44,973	1,993	4.4	38,305	1,289	3.4	28,111	623	2.2	95,890	10,563
147,659	8,990	6.1	124,413	3,299	2.7	99,459	1,974	2.0	82,683	219	.3	192,443	18,046
1,144,165	73,308	6.4	995,394	46,219	4.6	802,929	37,960	4.7	626,601	18,483	2.9	1,518,456	105,734
223,993	14,515	6.5	162,272	8,174	5.0	113,832	5,820	5.1	85,974	2,608	3.0	446,776	31,347
848,790	61,350	7.2	680,474	26,703	3.9	541,646	23,621	4.4	401,606	11,979	3.0	1,361,876	118,215
799,394	132,227	16.5	749,574	90,380	12.1	626,681	88,605	14.1	516,469	69,077	13.4	1,160,624	123,810
24,811	3,466	14.0	21,639	2,738	12.6	16,538	1,941	11.7	13,607	2,067	15.2	31,985	1,878
145,619	13,344	9.2	124,817	7,033	5.6	103,414	8,256	8.0	78,735	4,603	5.8	182,244	11,075
23,178	1,214	5.2	15,200	1,214	8.0	9,152	579	6.3	7,394	702	9.5	52,924	242
161,500	27,646	17.1	237,356	30,081	12.7	200,729	29,179	14.5	166,220	22,275	13.4	368,288	40,690
91,345	15,181	16.6											
139,535	33,111	23.7	138,394	25,108	18.1	116,340	25,315	21.8	102,002	19,480	19.1	187,261	34,904
62,547	12,490	20.0	65,755	5,606	8.5	60,105	5,689	9.5	56,715	7,478	13.2	73,660	8,387
129,695	21,899	16.9	127,845	16,305	12.7	108,329	15,969	14.7	84,677	11,905	14.1	192,819	20,553
21,034	3,876	18.4	18,568	2,294	12.4	12,024	1,675	13.9	7,118	565	7.9	70,844	5,993
931,048	151,468	16.3	864,071	99,054	11.5	632,163	93,014	14.7	437,689	55,741	12.7	1,973,231	225,010
245,133	43,826	17.9	209,908	27,690	13.2	170,521	26,738	15.7	132,189	16,044	12.1	337,017	49,473
199,059	37,713	19.0	182,535	26,357	14.4	153,152	27,427	17.9	129,562	20,720	16.0	245,484	31,698
105,474	17,429	16.5	114,249	13,986	12.2	90,613	12,681	14.0	71,210	8,487	11.9	161,084	23,127
84,784	9,357	11.0	82,696	6,027	7.3	65,918	5,320	8.1	39,917	3,246	8.1	110,613	9,047
87,096	12,048	13.8	97,784	7,756	7.9	77,787	9,482	12.2	48,240	4,693	9.7	129,638	27,356
132,390	17,505	13.2	105,612	8,202	7.8	39,345	4,805	12.2					
77,195	13,610	17.6	71,285	9,636	12.7	34,828	6,560	18.8	16,571	2,562	15.5	210,026	20,961
3,124,253	218,307	7.0	2,135,568	119,074	5.6	1,219,817	87,469	7.2	672,486	40,242	6.0	6,699,346	279,074
625,176	41,439	6.6	544,088	22,517	4.1	451,789	22,224	4.9	347,113	12,888	3.7	833,486	38,881
382,070	36,331	9.5	306,191	23,483	7.7	210,948	25,257	12.0	146,518	13,670	9.3	555,243	21,233
617,435	40,801	6.6	424,876	23,956	5.6	194,948	16,076	8.2	108,819	11,041	10.2	1,261,390	50,558
311,712	17,543	5.6	193,758	8,308	4.3	97,516	3,902	4.0	52,219	1,071	2.1	690,026	36,441
254,262	17,637	6.9	192,250	7,215	3.8	81,543	2,832	3.5	8,227	1,182	14.4	558,986	28,477
114,344	8,041	7.0	46,572	2,302	4.9	2,275	376	16.5					
289,162	14,782	5.1	159,134	7,544	4.7	42,958	2,880	6.6	9,609	389	4.1	621,056	15,592
384,314	34,780	9.1	259,179	23,442	9.0	137,846	13,974	10.1					
5,496	403	7.3	938	61	6.5								
38,782	956	2.5	8,582	306	3.6								
101,480	5,994	5.9											
332,636	34,899	10.5	286,944	28,036	9.8	97,840	17,350	17.6					
12,545	399	3.2											
5,908	326	5.5											
16,083	2,305	14.3	30,295										
23,176	14,882	64.3	22,076	15,561	70.5	15,598	12,902	83.1					
5,311	1,167	22.0											
17,654	1,137	6.4	8,180	95	1.2	2,810	86	3.1					
24,245	474	2.0	9,933	134	1.4								
6,501	315	4.9											
8,750	437	5.0	6,216	290									
25,640	1,085	4.2	17,238	741	4.3	4,641	84	1.8					
186,823	12,362	6.6	200,682	11,505	5.7	74,790	4,119	5.5					

[a] Estimated, as explained in footnote to p. 794.

TABLE IX.—*Negro males of voting age, with percentage unable to read and write, to read and write, for 1850 and 1860, by States*

	Negro males of voting age.					
	1900.			1870.		
	Total.	Illiterate.	Per cent.	Total.	Illiterate.	Per cent.
The United States	2,000,302	976,610	47.4	1,032,475	862,243	83.5
North Atlantic Division	123,328	18,808	15.3	48,656	14,443	29.7
Maine	445	77	17.3	497	69	13.9
New Hampshire	230	34	14.8	176	38	21.6
Vermont	289	57	19.7	278	45	16.2
Massachusetts	10,456	1,100	10.5	4,073	822	20.1
Rhode Island	2,765	425	15.4	1,404	291	20.7
Connecticut	4,576	598	13.1	2,700	627	23.2
New York	31,425	3,541	11.3	14,586	3,912	26.8
New Jersey	21,474	3,925	18.3	7,870	2,881	36.6
Pennsylvania	51,668	9,051	17.5	17,072	5,758	33.7
South Atlantic Division	817,224	417,400	51.1	456,448	396,437	86.9
Delaware	8,374	3,578	42.7	5,224	3,765	72.1
Maryland	60,406	24,402	40.5	30,120	27,123	90.3
District of Columbia	23,072	6,024	26.1	10,143	7,599	74.9
Virginia	146,122	76,764	52.5	107,691	97,908	90.9
West Virginia	14,786	5,584	37.8	3,972	3,186	80.2
North Carolina	127,114	67,489	53.1	78,019	68,669	88.0
South Carolina	152,860	83,618	54.7	85,475	70,830	82.9
Georgia	223,073	125,710	56.4	107,962	100,551	93.1
Florida	61,417	24,171	39.4	18,842	16,806	89.2
South Central Division	951,724	500,093	52.5	461,478	413,182	89.5
Kentucky	74,728	36,990	49.5	44,321	37,889	85.5
Tennessee	112,236	53,396	47.6	64,131	55,938	87.2
Alabama	181,471	107,997	59.5	97,823	91,017	93.0
Mississippi	197,926	105,331	53.2	89,926	80,810	89.9
Louisiana	147,348	90,262	61.3	86,913	76,612	88.1
Texas	136,875	61,744	45.1	51,575	47,235	91.6
Indian Territory	9,146	3,776	41.3	----------	----------	----------
Oklahoma	4,827	1,543	32.0	----------	----------	----------
Arkansas	87,157	39,054	44.8	26,789	23,681	88.4
North Central Division	155,701	38,652	24.8	63,166	37,434	59.3
Ohio	31,235	6,813	21.8	15,614	7,531	48.2
Indiana	18,186	5,042	27.7	6,113	3,182	52.0
Illinois	29,762	5,551	18.7	7,694	3,999	51.6
Michigan	5,198	726	14.0	3,130	1,015	32.4
Wisconsin	1,006	128	12.7	642	185	28.8
Minnesota	2,168	150	6.9	246	44	17.9
Iowa	4,441	975	22.0	1,542	635	41.2
Missouri	46,418	14,829	31.9	23,882	18,002	75.4
North Dakota	115	19	16.5	28	6	21.4
South Dakota	184	30	16.3			
Nebraska	2,298	267	11.6	290	93	32.1
Kansas	14,695	4,122	28.1	3,985	2,772	69.6
Western Division	12,325	1,657	13.4	2,727	747	27.4
Montana	711	74	10.4	108	34	31.5
Wyoming	481	102	21.2	101	33	32.7
Colorado	3,215	448	13.9	197	63	32.0
New Mexico	775	126	16.3	85	58	68.2
Arizona	1,084	120	11.1	18	1	5.6
Utah	358	17	4.7	36	8	22.2
Nevada	70	16	22.9	203	15	7.4
Idaho	130	20	15.4	38	4	10.5
Washington	1,230	141	11.5	67	15	22.3
Oregon	560	53	9.5	143	48	33.6
California	3,711	540	14.6	1,731	468	27.0

for 1870 and 1900; also "free colored" males, 20 years of age and upward, unable and Territories, arranged geographically.

Free colored males 20 years of age and upward.						
1860.			1850.			
Total.	Illiterate.	Per cent.	Total.	Illiterate.	Per cent.	
115,379	41,275	35.8	102,520	40,526	39.5	The United States.
39,616	8,924	22.5	39,324	10,601	27.0	North Atlantic Division:
362	25	6.9	401	77	19.2	Maine.
149	15	10.1	154	26	16.9	New Hampshire.
194	27	6.5	205	32	15.6	Vermont.
2,602	291	11.2	2,662	375	14.1	Massachusetts.
1,023	119	11.6	1,028	130	12.6	Rhode Island.
2,281	181	7.9	2,204	292	13.2	Connecticut.
13,089	2,653	20.3	13,439	3,387	25.2	New York.
6,285	1,720	27.3	5,979	2,167	36.2	New Jersey.
13,631	3,893	28.5	13,252	4,115	31.0	Pennsylvania.
47,087	23,603	50.1	42,596	22,237	52.2	South Atlantic Division:
4,408	3,056	69.3	3,963	2,724	68.7	Delaware.
19,215	9,904	51.5	16,891	9,422	55.8	Maryland.
2,231	1,151	51.6	2,015	1,106	54.9	District of Columbia.
12,199	5,489	45.0	11,710	5,141	43.9	Virginia.
						West Virginia.
6,183	3,067	49.8	5,509	3,099	56.2	North Carolina.
1,927	633	32.8	1,740	421	24.2	South Carolina.
737	255	34.6	582	208	35.7	Georgia.
187	48	25.7	186	116	62.3	Florida.
8,998	2,618	29.1	8,457	3,253	38.5	South Central Division:
2,601	1,113	42.8	2,647	1,431	54.0	Kentucky.
1,530	743	48.5	1,388	506	36.2	Tennessee.
579	192	28.0	471	108	22.9	Alabama.
186	50	26.9	251	75	29.9	Mississippi.
3,998	485	12.1	3,427	1,038	30.3	Louisiana.
68	25	16.8	103	34	33.0	Texas.
						Indian Territory.
						Oklahoma.
36	10	28.0	170	61	35.9	Arkansas.
17,167	5,607	32.7	11,277	4,341	38.5	North Central Division:
8,710	2,995	34.4	6,059	2,306	39.0	Ohio.
2,715	869	32.0	2,465	1,024	41.5	Indiana.
1,953	632	32.4	1,398	605	43.2	Illinois.
1,898	558	29.4	791	201	25.4	Michigan.
353	53	15.6	219	55	25.1	Wisconsin.
65	6	9.2	14			Minnesota.
290	92	31.7	80	15	18.5	Iowa.
1,019	371	36.4	251	75	29.9	Missouri.
						North Dakota.
						South Dakota.
15	6	40.0				Nebraska.
149	25	16.8				Kansas.
2,511	523	20.8	866	94	10.9	Western Division:
						Montana.
						Wyoming.
35						Colorado.
22	12	54.5	16	2	12.5	New Mexico.
						Arizona.
5			5	1	20.0	Utah.
32	6	18.7				Nevada.
						Idaho.
25	1	4.0				Washington.
53	7	13.2	64	3	46.9	Oregon.
2,339	497	21.2	781	88	11.2	California.

TABLE X.—*Negro males of voting age, with percentage unable to read and write, (1) in cities of 25,000 inhabitants and over, (2) outside of such cities, (3) in selected counties, by States and Territories, geographically arranged, 1900.*

State or Territory.	Number of cities.	1. In cities of 25,000 and upward.			2. Outside of cities of 25,000 and upward.			3. In selected rural counties in the several States.			
		Total.	Illiterate.	Per cent.	Total.	Illiterate.	Per cent.	County.	Total.	Illiterate.	Per cent.
United States	160	335,080	81,011	24.2	1,726,497	896,765	51.9				
North Atlantic Division	70	75,278	8,442	11.2	48,052	10,360	21.6				
Maine	1	98	11	11.2	347	66	19.0	Aroostook	8	5	62.5
New Hampshire	1	13	1	7.7	217	33	15.2	Grafton	19	3	15.8
Vermont	0				289	57	19.7	Franklin	30	9	30.0
Massachusetts	20	8,001	677	8.5	2,455	423	17.2	Barnstable	79	22	27.8
Rhode Island	3	1,555	268	17.2	1,210	157	13.0	Kent	105	19	18.1
Connecticut	5	2,073	191	9.2	2,503	407	16.3	Windham	140	36	25.7
New York	12	21,481	1,556	7.2	9,944	1,985	20.0	Wayne	89	31	34.8
New Jersey	10	9,193	1,213	13.2	12,281	2,712	22.1	Sussex	40	17	42.5
Pennsylvania	18	32,802	4,525	13.8	18,806	4,526	24.1	Franklin	554	224	40.4
South Atlantic Division	11	94,920	28,355	29.9	722,304	389,045	53.9				
Delaware	1	2,949	952	32.2	5,425	2,626	48.4	Sussex	1,598	871	54.5
Maryland	1	21,806	5,785	26.5	38,600	18,677	48.4	St. Mary	1,816	1,168	64.3
District of Columbia	1	23,072	6,024	26.1							
Virginia	2	14,344	5,239	36.5	131,778	71,525	54.2	Franklin	979	708	72.3
West Virginia	1	354	70	19.8	14,432	5,514	38.2	Hampshire	120	70	58.3
North Carolina	0				127,114	67,489	53.1	Caswell	1,657	1,125	67.9
South Carolina	1	7,632	2,163	28.3	145,228	81,455	56.1	Chester	3,587	2,363	65.9
Georgia	3	20,357	7,187	35.3	202,716	118,523	58.5	Lincoln	768	608	79.2
Florida	1	4,406	935	21.2	57,011	23,236	40.8	Leon	3,267	1,941	59.4
North Central Division	49	67,820	11,304	16.7	89,156	28,514	32.0				
Ohio	9	13,977	2,425	17.3	17,258	4,398	25.4	Brown	489	182	37.2
Indiana	5	8,310	2,146	25.8	9,876	2,896	29.3	Perry	64	37	57.8
Illinois	7	15,295	1,340	8.8	14,467	4,211	29.1	Grundy	38	18	47.4
Michigan	5	1,959	175	8.9	3,234	551	17.0	Montcalm	40	12	30.0
Wisconsin	5	511	36	7.0	1,770	1,258	71.1	Iowa	6	3	50.0
Minnesota	3	1,831	92	5.0	337	58	17.2	Aitkin	13	5	38.5
Iowa	6	1,052	144	13.3	3,359	831	24.7	Davis	20	10	50.0
Missouri	4	19,830	3,936	19.8	26,588	10,893	41.0	New Madrid	507	311	61.3
North Dakota	0				115	19	16.5	Burleigh	21	10	47.6
South Dakota	0				184	30	16.3	Davison	3	2	66.7
Nebraska	3	1,830	158	8.6	459	109	23.7	Boxbutte	32	16	50.0
Kansas	2	3,186	852	26.7	11,509	3,270	28.4	Lincoln	15	9	60.0

South Central Division	18	92,420	32,563	35.2	859,295	467,580	54.4			
Kentucky	4	15,878	5,668	35.7	58,850	31,322	53.2	Shelby	1,199	768	64.1
Tennessee	4	27,406	9,852	35.9	84,770	43,544	51.3	Morgan	418	321	76.8
Alabama	3	13,136	5,717	43.5	108,335	102,280	60.8	Lowndes	6,455	4,667	72.3
Mississippi	0				197,936	105,331	53.2	Noxubee	5,204	3,435	66.0
Louisiana	1	10,809	7,125	30.0	127,539	83,137	65.2	Lafayette	1,739	1,489	85.6
Texas	5	11,889	3,010	25.3	124,986	58,734	47.0	Chambers	167	114	68.3
Indian Territory	0				9,140	3,778	41.3	Chickasaw Nation	2,052	925	45.1
Oklahoma	0				4,827	1,543	32.0	Kingfisher	608	222	36.5
Arkansas	1	4,251	1,191	28.0	82,906	37,863	45.7	Lincoln	2,039	1,195	58.6
Western Division	12	4,635	347	7.5	7,690	1,310	17.0				
Montana	1	110	8	7.3	601	66	11.0	Custer	22	9	40.9
Wyoming	0				481	102	21.2	Carbon	119	40	33.6
Colorado	2	1,783	216	12.1	1,432	232	16.2	Prowers	29	10	34.5
New Mexico	0				775	126	16.2	Colfax	186	45	24.2
Arizona	0				1,084	120	11.1	Pima	59	17	28.8
Utah	1	118	8	6.8	240	9	3.8	Juab	3	1	33.3
Nevada	0				70	16	22.9	Washoe	14	4	28.6
Idaho	0				130	20	15.4	Bingham	16	5	31.2
Washington	3	499	20	4.0	731	121	16.5	Kittitas	203	52	25.6
Oregon	1	386	15	3.9	174	38	21.8	Coos	14	5	35.7
California	4	1,739	80	4.6	1,972	460	23.3	Shasta	82	19	23.2

TABLE XI.—*Negro males of voting age with percentage unable to read and write, in 1900, in 50 large cities; total negro population of the same cities in 1900, 1890, 1880, and 1870.*

	Cities with a large negro element.	Negro males of voting age.			Total negro population in—				Increase, 1870 to 1900.
		Total.	Illiterate.	Per cent.	1900.	1890.	1880.	1870.	
1	Chicago, Ill	12,414	682	5.5	30,150	14,271	6,480	3,691	26,459
2	Boston, Mass	4,441	254	5.7	11,591	8,125	5,873	3,496	8,095
3	Atlantic City, N. J	2,564	149	5.8	6,513	2,134	763	15	6,498
4	Jersey City, N. J	1,260	85	6.7	3,704	2,066	1,340	705	2,999
5	New York, N. Y	18,051	1,246	6.9	60,666	33,994	19,663	13,072	47,594
6	Detroit, Mich	1,372	117	8.5	4,111	3,431	2,821	2,235	1,876
7	Cambridge, Mass	1,131	107	9.5	3,888	1,978	1,504	848	3,040
8	Cleveland, Ohio	2,308	232	9.7	5,988	2,989	2,038	1,293	4,695
9	Philadelphia, Pa	20,085	2,190	10.9	62,613	39,371	31,699	22,147	40,466
10	Newark, N. J	1,906	241	12.2	6,694	4,141	3,311	577	6,117
11	St. Joseph, Mo	2,042	347	16.9	6,260	3,686	3,227	1,512	4,748
12	Pittsburg, Pa	6,541	1,116	17.1	17,040	7,850	4,077	2,015	15,025
13	Providence, R. I	1,500	263	17.5	4,817	3,963	3,582	2,559	4,258
14	Columbus, Ohio	2,955	531	17.9	8,201	5,525	3,010	1,847	6,354
15	Springfield, Ohio	1,508	280	19.0	4,253	3,552	2,900	1,327	3,026
16	San Antonio, Tex	2,053	393	19.1	7,588	4,720	3,036	1,957	5,581
17	St. Louis, Mo	11,727	2,370	20.2	35,516	26,565	22,256	22,088	13,428
18	Kansas City, Mo	5,797	1,176	20.3	17,567	13,700	8,143	3,770	13,797
19	Jacksonville, Fla	4,406	935	21.2	16,236	9,801	3,658	3,989	8,247
20	Cincinnati, Ohio	4,997	1,086	21.7	14,482	11,655	8,179	5,900	8,582
21	Galveston, Tex	2,259	504	22.3	8,291	6,722	5,348	3,007	5,284
22	Indianapolis, Ind	5,200	1,211	23.3	15,931	9,133	6,504	2,931	13,000
23	Camden, N. J	1,691	398	23.6	5,576	4,893	3,579	826	4,750
24	Harrisburg, Pa	1,272	312	24.5	4,107	3,591	2,903	2,287	1,820
25	Chester, Pa	1,452	364	25.1	4,403	1,656	1,152	712	3,791
26	Dallas, Tex	2,486	634	25.5	9,035	7,993	1,921	.....	9,035
27	Topeka, Kans	1,252	324	25.8	4,807	5,058	3,648	473	4,334
28	Washington, D. C	23,072	6,024	26.1	86,702	75,572	62,125	38,726	47,976
29	Baltimore, Md	21,806	5,785	26.5	79,258	67,104	53,716	39,558	39,700
30	Kansas City, Kans	1,934	528	27.3	6,509	5,004	.....	.....	6,509
31	Little Rock, Ark	4,251	1,191	28.0	14,694	9,739	4,507	5,274	9,420
32	Knoxville, Tenn	1,935	542	28.0	7,359	6,429	3,149	2,609	4,750
33	Charleston, S. C	7,632	2,163	28.3	31,522	30,970	27,276	26,173	5,349
34	Savannah, Ga	7,932	2,435	30.7	28,090	22,963	15,654	13,068	15,022
35	Houston, Tex	3,907	1,215	31.0	14,608	10,370	6,479	3,691	10,917
36	Chattanooga, Tenn	3,804	1,200	31.5	13,122	12,563	5,082	2,221	10,901
37	Wilmington, Del	2,949	952	32.3	9,786	7,644	5,468	3,211	6,575
38	Evansville, Ind	2,310	793	34.3	7,518	5,553	2,712	1,427	6,091
39	Louisville, Ky	12,416	4,346	35.0	39,130	28,651	20,905	14,956	4,183
40	Richmond, Va	8,472	3,001	35.4	32,230	32,390	27,882	23,110	9,120
41	New Orleans, La	19,869	7,125	36.0	77,714	64,491	57,617	50,456	27,258
42	Nashville, Tenn	7,476	2,726	36.4	30,044	29,382	16,337	9,709	20,335
43	Memphis, Tenn	14,251	5,384	37.7	49,910	28,706	14,896	15,471	34,439
44	Lexington, Ky	2,642	1,006	38.0	10,130	8,544	7,583	7,171	2,959
45	Norfolk, Va	5,872	2,238	38.1	20,230	16,244	10,068	8,766	11,464
46	Augusta, Ga	4,481	1,723	38.4	18,487	15,875	10,109	6,431	12,056
47	Atlanta, Ga	7,944	3,029	38.4	35,912	28,038	16,350	9,929	25,983
48	Birmingham, Ala	4,689	1,896	40.2	16,575	11,254	.....	.....	16,575
49	Montgomery, Ala	3,954	2,205	44.2	17,229	12,987	9,931	5,183	12,046
50	Mobile, Ala	4,493	2,082	46.3	17,045	13,630	12,240	13,919	3,126
	Total	.....	.....	.....	1,053,941	786,589	552,101	406,238	.....

TABLE XII.—*Two hundred communities having the largest number of negro inhabitants in 1900, arranged in the order of the number of such inhabitants.*

Washington, D. C	86,702	Tampa, Fla	4,382
Baltimore, Md	79,258	Spartanburg, S. C	4,269
New Orleans, La	77,714	Springfield, Ohio	4,258
Philadelphia, Pa	62,613	Fort Worth, Tex	4,249
New York, N. Y	60,666	Detroit, Mich	4,111
Memphis, Tenn	49,910	Harrisburg, Pa	4,107
Louisville, Ky	39,139	Greensboro, N. C	4,066
Atlanta, Ga	35,919	Henderson, Ky	4,029
St. Louis, Mo	35,516	Denver, Colo	3,923
Richmond, Va	32,230	Cambridge, Mass	3,888
Charleston, S. C	31,522	Marshall, Tex	3,709
Chicago, Ill	30,150	Huntsville, Ala	3,709
Nashville, Tenn	30,044	Jersey City, N. J	3,704
Savannah, Ga	28,090	Bessemer, Ala	3,695
Norfolk, Va	20,230	Anniston, Ala	3,669
Augusta, Ga	18,487	Omaha, Nebr	3,448
Kansas City, Mo	17,567	Helena, Ark	3,400
Montgomery, Ala	17,229	Dayton, Ohio	3,387
Mobile, Ala	17,045	Manchester, Va	3,368
Pittsburg, Pa	17,040	Columbus, Miss	3,366
Birmingham, Ala	16,575	Frankfort, Ky	3,316
Jacksonville, Fla	16,236	Allegheny, Pa	3,315
Indianapolis, Ind	15,931	New Iberia, La	3,309
Petersburg, Va	14,751	Thomasville, Ga	3,296
Little Rock, Ark	14,694	Griffin, Ga	3,258
Houston, Tex	14,608	Hopkinsville, Ky	3,243
Cincinnati, Ohio	14,482	Beaufort, S. C	3,220
Chattanooga, Tenn	13,122	Elizabeth City, N. C	3,164
Boston, Mass	11,591	Sumter, S. C	3,160
Macon, Ga	11,550	Alexandria, La	3,142
Wilmington, N. C	10,407	Winchester, Ky	3,128
Lexington, Ky	10,130	Hot Springs, Ark	3,102
Columbia, S. C	9,858	Owensboro, Ky	3,061
Wilmington, Del	9,736	Paris, Tex	3,061
Dallas, Tex	9,035	Annapolis, Md	3,002
Pensacola, Fla	8,561	Valdosta, Ga	2,958
Shreveport, La	8,542	Beaumont, Tex	2,953
Galveston, Tex	8,291	Albany, Ga	2,903
Lynchburg, Va	8,254	Waycross, Ga	2,899
Columbus, Ohio	8,201	New Haven, Conn	2,887
Vicksburg, Miss	8,147	Palestine, Tex	2,872
San Antonio, Tex	7,538	Rome, Ga	2,830
Evansville, Ind	7,518	Staunton, Va	2,828
Knoxville, Tenn	7,359	Monroe, La	2,734
Columbus, Ga	7,267	Georgetown, S. C	2,718
Charlotte, N. C	7,151	Columbia, Tenn	2,716
Natchez, Miss	7,090	Brenham, Tex	2,701
Newport News, Va	6,798	Tyler, Tex	2,693
Newark, N. J	6,694	Talladega, Ala	2,687
Baton Rouge, La	6,596	Milledgeville, Ga	2,663
Danville, Va	6,515	Charlottesville, Va	2,613
Atlantic City, N. J	6,513	Florence, S. C	2,603
Kansas City, Kans	6,509	Bowling Green, Ky	2,593
St. Joseph, Mo	6,260	Washington, N. C	2,550
Jackson, Tenn	6,108	Opelika, Ala	2,544
Cleveland, Ohio	5,988	Goldsboro, N. C	2,520
Newbern, N. C	5,878	Orangeburg, S. C	2,518
Roanoke, Va	5,834	Tuscaloosa, Ala	2,508
Waco, Tex	5,826	Covington, Ky	2,487
Austin, Tex	5,822	Salisbury, S. C	2,408
Paducah, Ky	5,814	Fort Smith, Ark	2,407
Meridian, Miss	5,787	Lake Charles, La	2,407
Pine Bluff, Ark	5,771	Corsicana, Tex	2,399
Raleigh, N. C	5,721	Eufaula, Ala	2,365
Portsmouth, Va	5,625	Greenwood, S. C	2,288
Camden, N. J	5,576	St. Paul, Minn	2,263
Key West, Fla	5,562	Denison, Tex	2,251
Greenville, S. C	5,414	Murfreesboro, Tenn	2,248
Athens, Ga	5,190	Durham, N. C	2,241
Brunswick, Ga	5,184	Springfield, Ill	2,227
Clarksville, Tenn	5,094	Fayetteville, N. C	2,221
Winston, N. C	5,043	Henderson, N. C	2,194
Cairo, Ill	5,000	Springfield, Mo	2,168
Greenville, Miss	4,987	Washington, Ga	2,163
Providence, R. I	4,817	Lake City, Fla	2,159
Topeka, Kans	4,807	Troy, Ala	2,140
Asheville, N. C	4,724	Aiken, S. C	2,131
Americus, Ga	4,691	Los Angeles, Cal	2,131
Alexandria, Va	4,533	Sherman, Tex	2,131
Jackson, Miss	4,447	Navasota, Tex	2,105
Selma, Ala	4,429	Trenton, N. J	2,096
Chester, Pa	4,403	Edenton, N. C	2,090

TABLE XII.—*Two hundred communities having the largest number of negro inhabitants in 1900, arranged in the order of the number of such inhabitants*—Continued.

Richmond, Ky	2,087	Concord, N. C	1,780
Quincy, Ill	2,089	Dyersburg, Tenn	1,778
Canton, Miss	1,985	Cuthbert, Ga	1,771
Cordele, Ga	1,973	Berkley, Va	1,770
Texarkana, Tex	1,964	Calvert, Tex	1,764
Cambridge, Md	1,958	Longview, Tex	1,761
Florence, Ala	1,952	Crowley, Tex	1,759
Donaldsonville, La	1,951	Tallahassee, Fla	1,755
Chester, S. C	1,931	Greenville, Tex	1,751
Marietta, Ga	1,928	Anderson, S. C	1,744
Aberdeen, Miss	1,924	St. Augustine, Fla	1,735
Danville, Va	1,913	Lagrange, Ga	1,725
Fernandina, Fla	1,902	Demopolis, Ala	1,713
Greenwood, Miss	1,884	Rockhill, S. C	1,706
Plaquemine, La	1,869	Dawson, Ga	1,702
Newberry, S. C	1,861	Union, S. C	1,701
Palatka, Fla	1,810	Union Springs, Ala	1,695
Gainesville, Fla	1,803	Hattiesburg, Miss	1,687

CHAPTER XIX.

FOREIGN UNIVERSITIES AND OTHER FOREIGN INSTITUTIONS OF HIGHER EDUCATION.

I. Universities arranged according to date of founding.
II. Other seats of learning arranged according to date of founding.
III. Universities, etc., arranged according to number of students.
IV. The same arranged alphabetically.
V. Universities arranged according to countries.
VI. Polytechnica arranged alphabetically.
VII. Agricultural, forestry, and mining schools arranged alphabetically.
VIII. Veterinary schools arranged alphabetically.

INTRODUCTION.

The author of "Minerva. Jahrbuch der Universtäten der Welt" (K. Trübner), which is the chief source of information offered in the following lists, says that he has submitted his work at various stages of completion to different professors of the countries mentioned, so that he is assured that his decision as to which of the learned institutions of the world should be regarded as universities is upheld by the most trustworthy authority. He describes his Jahrbuch as a collection of names of teaching bodies, of universities, or similar institutions of the world.

Since Volume 2 of this Report of the Commissioner of Education contains direct information concerning the higher institutions of learning in the United States, they have been omitted from the following lists, which are devoted exclusively to foreign institutions:

I. *Foreign universities arranged according to age.*

Date of foundation.	Locality.
	Tenth century.
988	Cairo, Egypt.
	Twelfth century.
1119	Bologna, Italy.
1181	Montpellier, France.
1200	Paris, France.
1200	Oxford, England.
	Thirteenth century.
1209	Valencia, Spain.
1222	Padua, Italy.
1224	Naples, Italy.
1233	Toulouse, France.
1243	Salamanca, Spain.
1257	Cambridge, England.
1266	Perugia, Italy.
1288	Coimbra, Portugal.
	Fourteenth century.
1303	Rome, Italy.
1339	Grenoble, France.
1343	Pisa, Italy.
1343	Valladolid, Spain.
1348	Prague, Bohemia, Austria.
1349	Florence, Italy.
1361	Pavia, Italy.
1364	Krakow, Galicia, Austria.
1365	Vienna, Austria.
1367	Fünfkirchen, Hungary.
1386	Heidelberg, Baden, Germany.
1391	Ferrara, Italy.
	Fifteenth century.
1402	Würzburg, Bavaria, Germany.
1409	Leipzig, Saxony, Germany.
1409	Aix, France.
1411	St Andrews, Scotland.
1412	Turin, Italy.
1419	Rostock, Mecklenburg, Germany.
1422	Parma, Italy.
1422	Bensançon, France.
1426	Louvain, Belgium.
1431	Poitiers, France.
1437	Caen, France.
1441	Bordeaux, France.
1444	Catania, Sicily, Italy.

I. *Foreign universities arranged according to age*—Continued.

Date of foundation.	Locality.
	Fifteenth century—Continued.
1450	Barcelona, Spain.
1451	Glasgow, Scotland.
1456	Griefswald, Prussia, Germany.
1457	Freiburg, Baden, Germany.
1460	Basel, Switzerland.
1463	Nantes, France.
1465	Budapest, Hungary.
1472	Munich, Bavaria, Germany.
1474	Saragossa, Spain.
1477	Upsala, Sweden.
1477	Tübingen, Wurttemberg, Germany.
1478	Copenhagen, Denmark.
1494	Aberdeen, Scotland.
	Sixteenth century.
1501	Valencia, Spain.
1502	Halle-Wittenberg, Prussia, Germany.
1502	Seville, Spain.
1504	Santiago, Spain.
1506	Breslau, Prussia, Germany (1702).
1508	Madrid, Spain.
1527	Marburg, Prussia, Germany.
1531	Granada, Spain.
1531	Sarospatak, Hungary.
1537	Lausanne, Switzerland.
1540	Macerata, Italy.
1544	Konigsberg, Prussia, Germany.
1548	Messina, Sicily, Italy.
1549	Debreczin, Hungary, Theological College.
1556	Sassari, Italy.
1558	Jena, Thuringia, Germany.
1559	Geneva, Switzerland.
1566	Olmütz, Moravia, Austria.
1567	Strassburg, Alsace, Germany.
1568	Braunsberg, Prussia, Germany.
1572	Nancy, France.
1575	Leyden, Netherlands.
1580	Oviedo, Spain.
1582	Rome, Italy (Pontif.).
1583	Edinburgh, Scotland.
1586	Gratz, Styria, Austria.
1591	Dublin, Ireland.
1596	Cagliari, Italy.
	Seventeenth century.
1605	Manila, Philippine Islands.
1607	Giessen, Hesse, Germany.
1614	Groningen, Netherlands.
1622	Salzburg, Austria.
1632	Amsterdam, Netherlands.
1632	Dorpat, Russia.
1636	Utrecht, Netherlands.
1640	Helsingfors, Finland, Russia.
1647	Bamberg, Bavaria, Germany.
1657	Kaschau, Hungary.
1665	Kiel, Prussia, Germany.
1666	Lund, Sweden.
1671	Urbino, Italy.
1673	Innspruck, Tyrol, Austria.
1676	Eperies, Hungary.
1683	Modena, Italy.
	Eighteenth century.
1710	Barbados (Codrington College), West Indies.
1721	Habana, Cuba.
1722	Dijon, France.
1727	Camerino, Italy.
1737	Ratisbon, Germany, Theological Lyceum.
1737	Göttingen, Prussia, Germany.
1740	Erlau, Hungary.
1743	Erlangen, Bavaria, Germany.
1743	Santiago, Chile.

Date of foundation.	Locality.
	Eighteenth century—Continued.
1748	Cadiz, Spain.
1755	Moscow, Russia.
1771	Münster, Prussia, Germany.
1777	Siena, Italy.
1779	Palermo, Sicily, Italy.
1784	Lemberg, Galicia, Austria.
1785	Pressburg, Hungary.
1788	Grosswardein, Hungary.
1788	Kazan, Russia, Theological College.
	Nineteenth century.
1800	Edinburgh, Scotland, Medical College.
1804	Kazan, Russia.
1804	Kharkof, Russia.
1805	Yaroslavl, Russia.
1808	Clermont, France.
1808	Lille, France.
1808	Lyon, France.
1808	Rennes, France.
1809	Berlin, Prussia, Germany.
1811	Christiania, Norway.
1812	Genoa, Italy.
1815	Moscow, Russia.
1816	Ghent, Belgium.
1816	Warsaw, Poland, Russia.
1817	Liege (Lüttich), Belgium.
1818	Bonn, Prussia, Germany.
1819	St. Petersburg, Russia.
1820	Nezin, Russia, Philological School.
1821	Halifax, Canada.
1821	Montreal, Canada.
1826	London (University College), England.
1827	Toronto, Canada.
1827	Sheffield (Medical College), England.
1828	Lampeter St David's College), Wales.
1832	Durham, England.
1832	Zurich, Switzerland.
1832	Kief, Russia.
1834	Freising, Germany, Theological Lyceum.
1834	Brussels, Belgium.
1834	Berne, Switzerland.
1836	London (University), England.
1837	Athens, Greece.
1838	Messina, Italy.
1840	Kingston, Canada.
1843	Eichstätt, Germany, Theological Lyceum.
1845	Cork, Ireland.
1845	Belfast, Ireland.
1845	Galway, Ireland.
1849	Algiers, Algeria.
1850	Sydney, Australia.
1851	Manchester (Victoria University), England.
1851	Newcastle, England.
1853	Melbourne, Victoria, Australia.
1857	Calcutta, India.
1857	Madras, India.
1857	Bombay, India.
1858	Lisbon, Portugal.
1860	Jassy, Roumania.
1862	Kecskemet, Hungary.
1864	Bucharest, Roumania.
1865	Odessa, Russia.
1866	Neuchâtel, Switzerland.
1868	Tokyo, Japan.
1870	New Zealand, New Zealand.
1872	Aberystwith, Wales.
1872	Adelaide, Australia.
1872	Klausenburg, Hungary.
1873	Cape Town, South Africa.
1874	Agram, Croatia, Hungary.
1875	Angers, France.

I. *Foreign universities arranged according to age*—Continued.

Date of foundation.	Locality.
	Nineteenth century—Continued.
1875	Lille (Faculté Libre), France.
1875	Lyon (Faculté Libre), France.
1875	Czernowitz, Bukowina, Austria.
1875	Birmingham, England.
1876	Bristol, England.
1876	Montevideo, Uruguay.
1876	Montreal, Canada, Université Laval de Quebeck.
1877	Leeds, England.
1877	Liverpool, England.
1878	Stockholm, Sweden.
1879	Sheffield (Firth College), England.
1880	Amsterdam, Netherlands, Free University.
1880	Dublin, University of Ireland.
1880	Dundee, Scotland.
1880	Nottingham, England.
1882	Prague (Bohemian University), Austria.
1882	Lahore, India.
1883	Cardiff, Wales.
1884	Bangor, Wales.
1885	Odessa, Russia.
1887	Allahabad, India.
1888	Tomsk, Siberia, Russia.
1888	Sophia, Bulgaria.
1889	Freiburg, Switzerland.
1891	Gottenborg, Sweden.
1892	Bello Horisonte, Brazil.
1897	Kyoto, Japan.
1901	Cologne, Prussia, Germany.
1901	Frankfort, Prussia, Germany.
	Date not known.
	Belgrade, Servia.
	Limoges, France.
	Marseille, France.
	Montauban, France.
	Cordoba, Argentina.
	Buenos Ayres, Argentina.

II. *Other higher seats of learning arranged according to age.*

Date of foundation.	Locality.
	Eighteenth century.
1745	Brunswick, Germany, Polytechnic.
1761	Lyon, France, Veterinary.
1763	Vienna, Austria, Veterinary.
1765	Freiberg, Germany, Mining.
1766	Alford, France, Veterinary.
1773	St. Petersburg, Russia, Mining.
1774	Dresden, Germany, Veterinary.
1775	Clausthal, Germany, Mining.
1778	Hanover, Germany, Veterinary.
1778	Paris, France, Mining.
1779	Berlin, Germany, Polytechnic.
1786	Budapest, Hungary, Veterinary.
1790	Berlin, Germany, Veterinary.
1790	Munich, Germany, Veterinary.
1791	London, England, Veterinary.
1791	Milan, Italy, Veterinary.
1792	Madrid, Spain, Agricultural and Veterinary.
1794	Paris, France, Polytechnic.
1798	Stockholm, Sweden, Polytechnic.
	Nineteenth century.
1802	Cordoba, Spain, Veterinary.
1804	Kharkof, Russia, Veterinary.
1806	Berlin, Germany, Agriculture.
1806	Prague, Austria, German Polytechnic.
1811	Tharandt, Germany, Forestry.
1811	Stockholm, Sweden, Agriculture.
1811	Gratz, Austria, Polytechnic.
1815	Vienna, Austria, Polytechnic.
1816	St. Etienne, France, Mining.
1818	Hohenheim, Germany, Agriculture.
1819	Altenburg, Hungary, Agriculture.
1820	Eberswalde, Germany, Forestry.
1820	Santiago, Spain, Veterinary.
1821	Stuttgart, Germany, Veterinary.
1821	Stockholm, Sweden, Veterinary.
1823	Stockholm, Sweden, Forestry.
1824	Nancy, France, Forestry.
1825	Karlsruhe, Germany, Polytechnic.
1825	Toulouse, France, Veterinary.
1827	Munich, Germany, Polytechnic.
1828	Dresden, Germany, Polytechnic.
1828	Grignon, France, Agriculture.
1828	St. Petersburg, Russia, Polytechnic.
1829	Stuttgart, Germany, Polytechnic.
1829	Copenhagen, Denmark, Polytechnic.
1832	Moscow, Russia, Polytechnic.
1832	Riga, Russia, Polytechnic.
1835	Madrid, Spain, Polytechnic.
1837	Lisbon, Portugal, Polytechnic.
1844	Aschaffenburg, Germany, Agriculture.
1844	Lemberg, Austria, Polytechnic.
1846	Poppelsdorf, Germany, Agriculture.
1847	Helsingfors, Russia, Polytechnic.
1848	Dorpat, Russia, Veterinary.
1849	Pribram, Austria, Mining.
1850	Brünn, Austria, Polytechnic.
1851	Zurich, Switzerland, Polytechnic.
1854	Beauvais, France, Agriculture.
1856	Budapest, Hungary, Polytechnic.
1857	Lyon, France, Polytechnic.
1858	Copenhagen, Denmark, Agriculture and Veterinary.
1858	Turin, Italy, Polytechnic.
1859	Evois, Russia, Forestry.
1859	Eisenach, Germany, Forestry.
1860	Berlin, Germany, Mining.
1860	Gembloux, Belgium, Agriculture.
1863	Naples, Italy, Polytechnic.
1863	Milan, Italy, Polytechnic.
1864	Bucharest, Roumania, Veterinary.
1864	Delft, Netherlands, Polytechnic.
1865	Keszthely, Hungary, Agriculture.
1865	Debreczin, Hungary, Agriculture.
1865	Kaschau, Hungary, Agriculture.
1868	Münden, Germany, Forestry.
1868	Darmstadt, Germany, Polytechnic.
1868	Prague, Austria, Bohemian Polytechnic.
1869	Kolozsmonostor, Hungary, Agriculture.
1870	Aix-la-Chapelle, Germany, Polytechnic.
1872	Montpellier, France, Agriculture.
1872	Portici, Italy, Agriculture.
1872	Vienna, Austria, Agriculture.
1877	Oporto, Portugal, Polytechnic
1879	Hanover, Germany, Polytechnic.

II. *Other higher seats of learning arranged according to age*—Continued.

Date of foundation.	Locality.	Date of foundation.	Locality.
	Nineteenth century—Continued.		*Nineteenth century*—Continued.
1880	St. Petersburg, Russia, Forestry.	1898	Tomsk, Siberia, Polytechnic.
1881	Lemberg, Austria, Veterinary.	1898	Kief, Russia, Polytechnic.
1834	London, England, Polytechnic.	1898	Warsaw, Poland, Polytechnic.
1884	Kharkof, Russia, Polytechnic.	1899	Jekaterinoslaw, Russia, Mining.
1885	Coopers Hill, England, Polytechnic.	1899	Brünn, Austria, Polytechnic.
1885	Sheffield, England, Polytechnic.	1900	Glasgow, Scotland, Agriculture.
1885	Coopers Hill, England, Forestry.		*Date not known.*
1885	Lille, France, Agriculture, Technical, and Industrial.		London, England, Agriculture.
1886	Glasgow, Scotland, Polytechnic.		Paris, France, Agriculture.
1887	Campinas São Paulo, Brazil, Agriculture.		Naples, Italy, Veterinary.
1888	Douai, France, Agriculture.		Milan, Italy, Agriculture.
1888	Toronto, Canada, Agriculture.		Turin, Italy, Veterinary.
1890	Nancy, France, Polytechnic.		Warsaw, Russia, Veterinary.
1890	Rennes, France, Agriculture.		Kazan, Russia, Veterinary.
1891	Marseille, France, Polytechnic.		Moscow, Russia, Agriculture and Forestry.
1891	Bordeaux, France, Agriculture and Industrial.		Saragossa, Spain, Veterinary.
1892	Kingston, Canada, Mining.		Leon, Spain, Veterinary.
1892	Nowaja-Alexandria, Russia, Agriculture and Forestry.		Utrecht, Netherlands, Veterinary.
1822	Ouro-Preto, Brazil, Mining.		Mons, Belgium, Mining.
1854	Leoben, Austria, Mining.		Schemnitz, Hungary, Forestry and Mining.
1894	São Paulo, Brazil, Polytechnic.		

III. *Foreign universities, etc., arranged according to number of students.*

[The attendance stated is that of 1900–1901.]

A. UNIVERSITIES.

Order.	Locality.	Number of students.	Order.	Locality.	Number of students.
1	Berlin, Germany	13,073	37	Dorpat (Jurjew), Russia	1,790
2	Paris, France	12,171	38	Gratz (Styria), Austria	1,760
3	Cairo, Egypt	10,003	39	Valencia, Spain	1,728
4	Vienna, Austria	6,009	40	Krakow (Galicia) Austria	1,711
5	Budapest, Hungary	5,940	41	Coimbra, Portugal	1,684
6	Naples, Italy	5,165	42	Liege, Belgium	1,644
7	Madrid, Spain	5,118	43	Lemberg (Galicia), Austria	1,628
8	Munich, Germany	4,705	44	Montpellier, France	1,602
9	Moscow, Russia	4,691	45	Klausenburg, Hungary	1,592
10	Bucharest, Roumania	4,314	46	Tübingen, Germany	1,524
11	Leipzig, Germany	4,220	47	Bologna, Italy	1,469
12	St. Petersburg, Russia	3,775	48	Göttingen, Germany	1,556
13	Oxford, England	3,481	49	Wales (Aberystwyth, Bangor and Cardiff)	1,452
14	Prague (Bohemian), Austria	3,459	50	Padua, Italy	1,450
15	Tokyo, Japan	3,213	51	Marburg, Germany	1,428
16	Athens, Greece (about)	3,000	52	Christiania, Norway	1,400
17	Cambridge, England	2,985	53	Palermo, Italy	1,400
18	Manchester (Leeds and Liverpool), England	2,939	54	Upsala, Sweden	1,388
19	Edinburgh, Scotland	2,920	55	Kharkof, Russia	1,384
20	Turin, Italy	2,700	56	Berne, Switzerland	1,344
21	Buenos Ayres, Argentina	2,665	57	Pavia, Italy	1,335
22	Kief, Russia	2,641	58	Amsterdam, Netherlands	1,332
23	Lyon, France	2,602	59	Genoa, Italy	1,325
24	Bonn, Germany	2,557	60	Toronto, Canada	1,322
25	Helsingfors (Finland), Russia	2,556	61	New Zealand, New Zealand	1,287
26	Rome (Royal University), Italy	2,348	62	Würzburg, Germany	1,254
27	Glasgow, Scotland	2,059	63	Strassburg, Germany	1,250
28	Bordeaux, France	2,042	64	Geneva, Switzerland	1,247
29	Copenhagen, Denmark (about)	2,000	65	Prague (German), Austria	1,234
30	Halle-Wittenberg, Germany	1,961	66	Warsaw (Poland), Russia	1,222
31	Louvain, Belgium	1,960	67	Salamanca, Spain	1,200
32	Toulouse, France	1,955	68	Kiel, Germany	1,179
33	Barcelona, Spain	1,887	69	Manila, Philippines	1,144
34	Freiburg, Germany	1,861	70	Rennes, France	1,143
35	Heidelberg, Germany	1,823	71	Lille, France	1,136
36	Breslau, Germany	1,813	72	Nancy, France	1,130
			73	Gottenborg, Sweden	1,116
			74	Odessa, Russia	1,116

III. *Foreign universities, etc., arranged according to number of students*—Cont'd.

A. UNIVERSITIES—Continued.

Order.	Locality.	Number of students.	Order.	Locality.	Number of students.
75	Montreal, Canada	1,111	113	Basel, Switzerland	618
76	Pisa, Italy	1,074	114	Lyon (Free Univ.), France	600
77	Brussels, Belgium	1,060	115	Dublin (Royal Univ.), Ireland	600
78	Dublin, Ireland	1,047	116	Florence, Italy	592
79	Leyden, Netherlands	1,027	117	Rostock, Germany	588
80	Catania, Italy	1,027	118	Lille (Free Univ.), France	550
81	Rome (Univ. Pontif.), Italy	1,026	119	Czernowitz, Austria	543
82	Saragossa, Spain	1,016	120	Kyoto, Japan	498
83	Erlangen, Germany	1,004	121	Sophia, Bulgaria	495
84	Utrecht, Netherlands	1,003	122	Adelaide, Australia	494
85	Innspruck (Tyrol), Austria	1,001	123	Freiburg, Switzerland	426
86	Santiago, Chile (about)	1,000	124	Groningen, Netherlands	420
87	Konigsberg, Germany	968	125	Belgrade, Servia	403
88	Birmingham, England	967	126	Quebec, Canada	358
89	Zurich, Switzerland	924	127	Halifax, Canada	345
90	Agram, Hungary	908	128	Stockholm, Sweden	327
91	Münster, Germany	907	129	Camerino, Italy	304
92	Aberdeen, Scotland	905	130	Perugia, Italy	298
93	Kazan, Russia	873	131	Besançon, France	295
94	Greifswald, Germany	846	132	Angers, France	287
95	Jena, Germany	818	133	Clermont, France	281
96	Ghent, Belgium	804	134	St. Andrews, Scotland	269
97	Jassy, Roumania	782	135	Toronto (Victoria University), Canada	250
98	Aix and Marseille, France	772	136	Cagliari, Italy	243
99	Poitiers, France	736	137	Paris (Sorbonne), France	233
100	Lausanne, Switzerland	721	138	Siena, Italy	228
101	Modena, Italy	711	139	Macerata, Italy	210
102	Paris (Free Univ.), France	704	140	Marseille, France	206
103	Caen, France	696	141	Durham, England	200
104	Lund, Sweden	693	142	Urbino, Italy	161
105	Grenoble, France	687	143	Sassari, Italy	160
106	Kingston, Canada	672	144	Montevideo, Uruguay	132
107	Sydney, Australia	657	145	Ferrara, Italy	128
108	Dijon, France	649	146	Amsterdam (Free Univ.), Netherlands	118
109	Melbourne, Australia	647	147	Lisbon, Portugal	111
110	Habana, Cuba	638			
111	Messina, Italy	626			
112	Parma, Italy	621			

B. COLLEGES, INDEPENDENT FACULTIES, AND SCHOOLS FOR ORIENTAL LANGUAGES.

1	Paris, France, National Art School	2,000	20	Sheffield, England, College	450
2	Nottingham, England, College	1,902	21	Paris, France, Oriental School	430
3	Newcastle, England, College	1,860	22	Rome, Italy, College of Propaganda	402
4	London, England, Kings College	1,500	23	Paris, France, École des Études Sociales	380
5	Edinburgh, Scotland, Medical School	1,200	24	Belfast, Ireland, College	349
6	London, England, University College	1,020	25	St. Petersburg, Russia, Law School	330
7	St. Petersburg, Russia, Women's Higher Courses (about)	1,000	26	Stockholm, Sweden, Medical School	327
8	London, England, St. Bartholomew's Hospital Medical School	950	27	Debreczin, Hungary, Theological and Law School	319
9	Algiers, Algeria, College	788	28	Rome, Italy, College of St. Thomas	296
10	St. Petersburg, Russia, Military Medical School	750	29	Kazan, Russia, Theological Academy	260
11	Cologne, Germany, Commercial University	749	30	Dundee, Scotland, College	253
12	Montreal, Canada, University Laval	605	31	Pressburg, Hungary, Law Academy	245
13	Paris, France, School of Political Science	600	32	Eperies, Hungary, Law Academy	245
14	Bristol, England, College	567	33	Nantes, France, Medical School	243
15	Tomsk, Siberia, University	540	34	St. Petersburg, Russia, Theological Academy	242
16	London, England, Guy's Hospital Medical School	500	35	Pernambuco, Brazil, Law Academy	237
17	Madras, India, Medical College	489	36	Oviedo, Spain, University College	234
18	Rome, Italy, Papal Seminary	480	37	Grosswardein, Hungary, Law Academy	222
19	Jaroslawl, Russia, Lyceum	456	38	Moscow, Russia, Theological Academy	218

III. *Foreign universities, etc., arranged according to number of students*—Cont'd.

B. COLLEGES, INDEPENDENT FACULTIES, AND SCHOOLS FOR ORIENTAL LANGUAGES—Continued.

Order.	Locality.	Number of students.	Order.	Locality.	Number of students.
39	Cork, Ireland, College	212	62	Paris, France, Superior Normal School	110
40	Newcastle, England, Medical School	210	63	Erlau, Hungary, Law Academy	108
41	Macerata, Italy, Law School	210	64	Limoges, France, Medical School	108
42	London, England, Women's Medical College	200	65	Nantes, France, Free Faculties	100
43	Kaschau, Hungary, Law Academy	194	66	Amiens, France, Medical School	100
44	Olmütz, Austria, University College	191	67	Milan, Italy, Academy	97
45	Kief, Russia, Theological Academy	181	68	Passau, Germany, Theological Lyceum	97
46	Neuchatel, Switzerland, Academy	178	69	Rheims, France, Medical School	92
47	Ratisbon, Germany, Theological Lyceum	174	70	Naples, Italy, Oriental School	91
48	Santiago, Chile, Institute of Pedagogy	162	71	St. Petersburg, Russia, Historical Institute	88
49	Rome, Italy, Women's University	160	72	Montauban, France, Theological Academy	85
50	Rouen, France, Medical School	157	73	Nezin, Russia, Historical Institute	81
51	Florence, Italy, Women's University	152	74	Bamberg, Germany, Theological Lyceum	71
52	Kecskemet, Hungary, Law Academy	151	75	Paris, France, Ecole des Chartes	69
53	Freising, Germany, Theological Lyceum	150	76	Rome, Italy, College of St. Anselmo	68
54	Sorospatak, Hungary, Law Academy	148	77	Braunsberg, Germany, Theological Lyceum	68
55	Fünfkirchen, Hungary, Law Academy	140	78	Salzburg, Austria, Theological Lyceum	60
56	Montevideo, Uruguay, Medical School	132	79	Moscow, Russia, Lazarev Institute	59
57	Vienna, Austria, Oriental Academy	132	80	Budapest, Hungary, Theological Academy	44
58	Dillingen, Germany, Theological Lyceum	131	81	Vienna, Austria, Theological Academy	31
59	Lampeter, Wales, College	130	82	Madrid, Spain, Law and Diplomatic School	31
60	Eichstätt, Germany, Theological Lyceum	114	83	Jerusalem, Palestine, Theological School	24
61	Galway, Ireland, College	110			

C. EXAMINING UNIVERSITIES IN ENGLAND AND INDIA.

1	Madras (candidates)	7,420	4	Bombay (candidates)	3,374
2	Calcutta (candidates)	7,210	5	Allahabad (candidates)	3,310
3	London (candidates)	5,000	6	Lahore (candidates)	2,803

D. POLYTECHNICAL INSTITUTES.

1	Berlin, Germany	4,811	21	Aix-la-Chapelle, Germany	714
2	Munich, Germany	2,738	22	Paris, France (Arts and Manufactures)	700
3	Vienna, Austria	2,525	23	Prague (German), Austria	618
4	Darmstadt, Germany	1,803	24	Glasgow, Scotland	596
5	Budapest, Hungary	1,780	25	Milan, Italy	552
6	Hanover, Germany	1,729	26	St. Petersburg, Russia (third)	530
7	Riga, Russia	1,701	27	Brunswick, Germany	509
8	Karlsruhe, Germany	1,635	28	Copenhagen, Denmark (about)	500
9	Zurich, Switzerland	1,511	29	Turin, Italy	497
10	Dresden, Germany	1,292	30	Paris, France (Polytechnic)	472
11	Prague (Bohemian), Austria	1,291	31	London, England (2 schools)	464
12	Stuttgart, Germany	1,203	32	Lisbon, Portugal	462
13	St. Petersburg, Russia (first)	1,100	33	Warsaw, Russia	461
14	Moscow, Russia	1,089	34	Stockholm, Sweden	450
15	Kharkof, Russia	1,000	35	Gratz, Austria	425
16	St. Petersburg, Russia (second)	894	36	Brünn (German), Austria	403
17	Delft, Netherlands	875	37	Helsingfors, Russia	372
18	Kief, Russia	846	38	St. Petersburg, Russia (fourth)	300
19	Sheffield, England	750	39	Oporto, Portugal	200
20	Lemberg, Austria	725			

IV. *Foreign universities, etc., arranged alphabetically, with faculties and number of students.*

1. *Aberdeen, Scotland:* University of Aberdeen, 905 students. Philosophical, theological, law, and medical faculties; library.
2. *Aberystwith, Wales:* Part of University College of Wales, associate colleges at Cardiff and Bangor, 524 students.
3. *Adelaide, Australia:* University of Adelaide, 494 students. Observatory.
4. *Agram, Croatia, Hungary:* Königl. Universität Agram, 908 students. Theological, law, and philosophical faculties; library.
5. *Aix-en-Provence, France:* Université d'Aix, 772 students. Law and philosophical faculties; library.
6. *Algiers, Algeria, Africa:* Académie d'Alger, 786 students. Law, medical, scientific, and philosophical faculties; library, observatory.
7. *Allahabad, India:* University of Allahabad. Examining board, 3,310 candidates.
8. *Amiens, France:* École Prép. de Médecine. Medical school, 100 students.
9. *Amsterdam, Netherlands:* Universiteit te Amsterdam, 1,332 students. Law, medical, scientific, philosophical, and theological faculties; library and several institutes.
10. *Amsterdam, Netherlands:* Free University, 118 students. Theological, law, and philosophical faculties.
11. *St. Andrews, Scotland:* University of St. Andrews, 269 students. St. Salvador, St. Leonard's, and St. Mary's College.
12. *Angers, France:* Université Catholique de L'Ouest, 287 students. Law, scientific, theological, and philosophical faculties; library.
13. *Angers, France:* École Prep. de Médecine. Medical school.
14. *Athens, Greece:* National University, 3,000 students. Theological, law, medical, and philosophical faculties; public library.
15. *Bangor, Wales:* Part of University College of Wales, 325 students.
16. *Bamberg, Bavaria, Germany:* Königl. Bayerisches Lyceum, 71 students. Theological and philosophical faculties.
17. *Barcelona, Spain:* Universidad de Barcelona, 1,887 students. Philosophical, law, scientific, medical, and pharmaceutical faculties; library.
18. *Basel, Switzerland:* Universität Basel, 618 students. Theological, law, medical, and philosophical faculties; public library.
19. *Belfast, Ireland:* Queen's College, 349 students.
20. *Belgrade, Servia:* Serpska Kraljevska Velika Skola, 403 students. Philosophical, law, and technological faculties; library.
21. *Bello Horizonte, Brazil:* Law faculty, formerly in Ouro Preto.
22. *Berlin, Prussia, Germany:* Königl. Friedr.-Wilhelms-Universität, 13,070 students. Theological, law, medical, and philosophical faculties; seminary for oriental languages, and 11 other seminaries, library, and 36 university institutes and museums.
23. *Berne, Switzerland:* Universität Bern, 1,344 students. Catholic and Protestant theology, law, medical, and philosophical faculties; city libraries.
24. *Besançon, France:* Université de Besançon, 295 students. Scientific, philosophical, and medical faculties; library.
25. *Birmingham, England:* Birmingham University, 967 students. Arts and science, medical and commercial faculties; library.
26. *Bologna, Italy:* Regia Università di Bologna, 1,469 students. Philosophical, scientific, law, medical, and pharmaceutical faculties; veterinary and engineers' schools; library.
27. *Bombay, India:* University of Bombay. Examining board, 3,374 candidates; five preparatory colleges.
28. *Bonn, Prussia, Germany:* Rheinische Friedr.-Wilhelms-Universität, 2,557 students. Protestant and Catholic theological, law, medical, and philosophical faculties; library and many institutes.
29. *Bordeaux, France:* Facultés de Bordeaux, 2,042 students. Law, medical, scientific, and philosophical faculties; library.
30. *Braunsberg, Prussia, Germany:* Königl. Lyceum Hosianum, 68 students. Theological and philosophical faculties; library.
31. *Breslau, Prussia, Germany:* Königl. Universität Breslau, 1,813 students. Catholic and Protestant theological, law, medical, and philosophical faculties; library.
32. *Bristol, England:* University College, 567 students (204 women). College faculty and medical school; library

83. *Brussels, Belgium:* Université libre de Bruxelles, 1,060 students. Philosophical, law, scientific, medical, and pharmaceutical faculties; also polytechnical school; library.
84. *Brussels, Belgium:* School of political and social sciences.
85. *Bucharest, Roumania:* Universitatea din Bucuresti, 4,314 students. Scientific, philosophical, law, medical, and theological faculties; library.
86. *Budapest, Hungary:* Királyi Magyar Tudomány-Egyetum, 5,940 students. Theological, law, medical, and philosophical faculties; library.
87. *Buenos Ayres, Argentina:* Universidad Nacional, 2,665 students. Law, medical, and general faculties.
88. *Cadiz, Spain:* Facultad de Medicina (belonging to Seville). Medical faculty; library.
89. *Caen, France:* Université de Caen, 696 students. Law, scientific, and philosophical faculties; library.
40. *Cagliari, Sardinia, Italy:* Regia Università di Cagliari, 243 students. Law, medical, and scientific faculties; library.
41. *Cairo, Egypt:* Azhar University, about 10,003 students and hearers.
42. *Calcutta, India:* University of Calcutta, 7,210 candidates, of whom 3,475 passed. Examining board; library.
43. *Cambridge, England:* University of Cambridge, 2,985 students. Schools of theology, law, oriental, classical, and modern philology, music, moral science, history and archæology, astronomy, physics, chemistry, mineralogy, biology, geology, and medicine; library.
44. *Camerino, Italy:* Libera Università degli Studi di Camerino, 304 students. Law, medical, and pharmaceutical faculties, and veterinary school; communal library.
45. *Cape Town, South Africa:* University of the Cape of Good Hope.
46. *Cardiff, Wales:* Part of University of Wales, 603 students. Philosophical and scientific faculties and department of engineering; library.
47. *Catania, Sicily, Italy:* Regia Università degli Studi di Catania, 1,027 students. Law, medical, scientific, and philosophical faculties; library.
48. *Christiania, Norway:* Kongelige Frederiks Universitet, 1,400 students. Theological, law, medical, philosophical, and scientific faculties; library.
49. *Clermont-Ferrand, France:* Université de Clermont, 281 students. Scientific and philosophical faculties; library.
50. *Coimbra, Portugal:* Universidade de Coimbra, 1,684 students. Theological, law, and scientific faculties; library.
51. *Cologne, Prussia, Germany:* Municipal Commercial University, 749 students.
Copenhagen. (See Kjøbenhavn.)
52. *Cordoba, Argentina:* Universidad Nacional. Law, scientific, and medical faculties; observatory.
53. *Cork, Ireland:* Queen's College, 212 students.
Cracow. (See Krakow.)
54. *Czernowitz, Bukowina, Austria:* K. k. Franz-Josephs-Universität, 543 students. Theological, law, and philosophical faculties; library.
55. *Debreczin, Hungary:* Evangelical Reformed University, 319 students. Law, theological, and philosophical faculties.
56. *Dijon, France:* Facultés de Dijon, 649 students. Law, scientific, and philosophical faculties; library.
57. *Dillingen, Bavaria, Germany:* Theological Lyceum, 129 students.
58. *Dorpat (Jurjew), Russia:* Imperial University, 1,790 students. Law, theological, medical, and philosophical faculties.
59. *Dublin, Ireland:* University of Dublin, 1,047 students.
60. *Dublin, Ireland:* Royal University of Ireland, about 600 candidates. Examining board.
61. *Dundee, Scotland:* University College, 253 students.
62. *Durham, England:* Durham University, 200 students. To this university belong the Codrington College, on the island of Barbados, and the Fourah Bay College, in Sierra Leone; also the College of Science, at Newcastle-on-Tyne, which has an enrollment of 1,500 students.
63. *Edinburgh, Scotland:* University of Edinburgh, 2,920 students. Philosophical, theological, law, and medical faculties; library.
64. *Edinburgh, Scotland:* School of Medicine, 1,200 students.
65. *Eichstätt, Bavaria, Germany:* Bischöfliches Lyceum, 114 students. Theological and philosophical faculties.
66. *Eperies, Hungary:* Evangelische Rechtsakademie, 245 students. Law school.

67. *Erlangen, Bavaria, Germany:* K. Bayerische Friedr.-Alexander-**Universität**, 1,004 students. Theological, law, medical, and philosophical **faculties**; library.
68. *Erlau, Hungary:* Erzbischöfliche Rechtsakademie, 108 students. **Law school.**
69. *Ferrara, Italy:* Libera Università di Ferrara, 128 students. **Law, scientific,** and medical faculties; library.
70. *Florence, Italy:* R. Instituto di Studi Superiori Practici e di Perfezionamento, 592 students. Philosophical, scientific, medical, and pharmaceutical **faculties**; library.
71. *Florence, Italy:* R. Instituto di Magistero Femminile, 152 students. **Woman's** university.
72. *Frankfort, Prussia, Germany:* Commercial and Social Science **Academy.**
73. *Freiburg, Baden, Germany:* Badische Albert-Ludwigs-**Universität, 1,861 students.** Law, theological, medical, and philosophical faculties; **library.**
74. *Freiburg, Switzerland:* Katholische Universität, 426 students. **Theological,** law, and philosophical faculties; library.
75. *Freising, Bavaria, Germany:* Königl. Bayerisches Lyceum, 150 **students.** Theological and philosophical faculties.
76. *Fünfkirchen, Hungary:* Bischöfliche Rechtsakademie. Law school, 140 students.
77. *Galway, Ireland:* Queen's College, 110 students.
78. *Geneva, Switzerland:* Université de Genève, 1,247 students. **Theological, law,** medical, philosophical, and scientific faculties; five libraries.
79. *Genoa, Italy:* R. Università degli Studi di Genoa, 1,325 students. **Law, medical,** scientific, and philosophical faculties, and schools of engineering and pharmaceutics; library.
80. *Ghent, Belgium:* Université de Gand, 804 students. Philosophical, **law, scientific,** and medical faculties; library.
81. *Giessen, Hessia, Germany:* Hessische Ludwigs Universität, 1,016 **students.** Theological, law, medical, and philosophical faculties; **library.**
82. *Glasgow, Scotland:* University of Glasgow, 2,059 students (360 women).
83. *Gottenburg, Sweden:* Göteborgs Högskola, 1,116 hearers.
84. *Göttingen, Prussia, Germany:* Georg-Augusts-Universität, 1,456 **students.** Theological, law, medical, and philosophical faculties; **library.**
85. *Granada, Spain:* Universidad de Granada. Philosophical, law, scientific, medical, and pharmaceutical faculties; library.
86. *Gratz, Styria, Austria:* K. k. Karl-Franzens Universität, 1,760 students. Theological, law, medical, and philosophical faculties; **library.**
87. *Greifswald, Prussia, Germany:* Universität, 846 students. **Theological, law,** medical, and philosophical faculties; library.
88. *Grenoble, France:* Université de Grenoble, 687 students. **Law, scientific,** and philosophical faculties; library.
89. *Groningen, Netherlands:* Rijks Universiteit te Groningen, 420 students. Theological, law, medical, scientific, and philosophical **faculties**; library.
90. *Grosswardein, Hungary:* Jógakademia, 222 students. Law school.
91. *Habana, Cuba:* Universidad de la Habana, 638 students. Philosophical, scientific, medical, and law faculties; library.
92. *Halifax, Nova Scotia, Canada:* Dalhousie College and University, 345 students.
93. *Halle, Prussia, Germany:* Friedr.-Universität Halle-Wittenberg, 1,961 students. Theological, law, medical, and philosophical faculties; **library.**
94. *Heidelberg, Baden, Germany:* Ruprecht-Karls-Universität, 1,823 students. Theological, law, medical, philosophical, and scientific faculties; library.
95. *Helsingfors, Finland, Russia:* Kejersliga Alexanders Universitet i Finland, 2,556 students. Theological, law, medical, and philosophical faculties; public library.
96. *Innspruck, Tyrol, Austria:* K. k. Leopold-Franzens Universität, 1,001 students. Theological, law, medical, and philosophical faculties; library.
97. *Jaroslawl* (or *Yaroslavl*), *Russia:* Demidovskij juridiceskij Licej, 456 students. Law school.
98. *Jassy, Roumania:* Universitatea din Jasi, 782 students. Law, philosophical, scientific, and medical faculties; library.
99. *Jena, Thuringia, Germany:* Sächsische Gesammt-Universität, 818 students. Theological, law, medical, and philosophical faculties; library.
100. *Jerusalem, Palestine:* École Pratique d'Étude Bibliques. Theological school, 24 students.

Jurjew. (See Dorpat.)

101. *Kazan, Russia:* Imperatorskij Kazanskij Universitet, 873 students. Philosophical, scientific, law, and medical faculties; library.
102. *Kazan, Russia:* Theological academy, 260 students.
103. *Kaschau, Hungary:* Rechts-Akademie, 194 students. Law school.
104. *Kecskemet, Hungary:* Rechts-Akademie, 151 students. Law school.
105. *Kharkof, Russia:* Imperatorskij Charkowskij Universitet, 1,384 students. Philosophical, scientific, law, and medical faculties; library.
106. *Kiel, Prussia, Germany:* K. Christian-Albrechts-Universität, 1,179 students. Theological, law, medical, and philosophical faculties; library.
107. *Kief, Russia:* Imperatorskij Universitet, 2,641 students. Medical, law, and philosophical faculties; institutes and library.
108. *Kief, Russia:* Theological academy, 181 students.
109. *Kingston, Ontario, Canada:* University of Queen's College, 672 students. Theological, arts, law, and medical faculties; museum.
110. *Kjöbenhavn (Copenhagen) Denmark:* Kjöbenhavns Universitet, about 2,000 students. Theological, law, medical, philosophical, and scientific faculties and polytechnic institute; library.
111. *Klausenburg, Siebenbürgen, Hungary:* K. k. Klausenburger Universität, 1,592 students. Law, medical, philosophical, and scientific faculties; library.
112. *Konigsberg, Prussia, Germany:* K. Albertus Universität, 968 students. Theological, law, medical, and philosophical faculties; royal and university library.
113. *Krakow, Galicia, Austria:* Jagellonische Universität, 1,711 students. Theological, law, medical, and philosophical faculties; library.
114. *Kyoto, Japan:* Imperial University, 498 students. Law, medical, and scientific faculties.
115. *Lahore, India:* The Punjab University, 2,803 candidates, of whom 1,398 passed. Oriental languages, arts, law, medicine, science, and engineering departments.
116. *Lampeter, Wales:* St. David's College, 130 students.
117. *Lausanne, Switzerland:* Université de Lausanne, 721 students. Theological, law, medical, philosophical, and scientific faculties.
118. *Leeds* (see Manchester), *England:* Yorkshire College, 1,134 students.
119. *Leipzig, Saxony, Germany:* Universität, 4,220 students. Theological, law, medical, and philosophical faculties; library.
120. *Leyden, Netherlands:* Rijks-Universiteit, 1,027 students. Medical, scientific, philosophical, theological, and law faculties; library.
121. *Lemberg, Galicia, Austria:* K. k. Franzen's Universität in Lemberg, 1,628 students. Theological, law, and philosophical faculties; library.

Liege. (See Lüttich.)

122. *Lille, France:* Facultés de Lille, 1,136 students. Law, medical, scientific, and philosophical faculties; library.
123. *Lille, France:* Facultés Libres, 550 students. Theological, law, medical, scientific, and philosophical faculties; library.
124. *Lima, Peru:* Universidad Mayor de San Marcos. Theological, law, medical, and philosophical faculties.
125. *Limoges, France:* École de Médecine et de Pharmacie, 108 students. Medical and pharmaceutical courses.
126. *Lisbon, Portugal:* Curso Superior de Letteras. 111 students.
127. *Lisbon, Portugal:* Ecola Medico Cirurgica. Medical college.
128. *Liverpool* (see Manchester), *England:* University College, 700 students.
129. *London, England:* University of London, about 5,000 candidates. Examining board; library.

To the university belong:

(1) University College, with philosophical, law, scientific, and medical faculties; library; about 1,020 students.
(2) King's College, with theological, philosophical, and medical faculties; library; 1,300 students.
(3) School of Modern Oriental Languages.
(4) Ten other colleges with 614 students.
(5) Eleven medical schools connected with hospitals; about 4,000 students.

130. *Louvain, Belgium:* Université Catholique de Louvain, 1,961 students. Theological, law, medical, philosophical, and scientific faculties; library.
131. *Louvain, Belgium:* Philosophical School of St. Thomas Aquinas.
132. *Lund, Sweden:* Kongl. Universitet i Lund, 693 students. Theological, law, medical, and philosophical faculties; library.

133. *Lüttich* (or *Liege*), *Belgium:* Université de Liége, 1,644 students. Philosophical, law, scientific, and medical faculties; library.
134. *Lyon, France:* Facultés Catholiques, about 600 students. Theological, law, scientific, and philosophical faculties.
135. *Lyon, France:* Université de Lyon, 2,602 students. Law, medical, scientific, and philosophical faculties; two libraries.
136. *Macerata, Italy:* Regia Università di Macerata, 210 students. Law faculty.
137. *Madras, India:* University of Madras, about 7,420 candidates. Examining board.
138. *Madras, India:* Medical college, 489 students.
139. *Madrid, Spain:* Universidad Central de España, 5,118 students. Philosophical, law, scientific, medical, and pharmaceutical faculties; libraries.
140. *Manchester, Liverpool, and Leeds, England:* Victoria University, about 3,000 students. This institution consists of:
(1) Owens College, Manchester, 1,105 students.
(2) University College, Liverpool, about 700 students.
(3) Yorkshire College, Leeds, 1,134 students.
141. *Manila, Philippine Islands:* Real y Pontificia Universidad de Santo Tomás de Manila, 1,144 students. Theological, law, medical, and pharmaceutical faculties; library.
142. *Marburg, Hesse, Germany:* Universität Marburg, 1,428 students. Theological, law, medical, philosophical, and scientific faculties; library.
143. *Marseille, France:* Belongs to Facultés d'Aix, 206 students. Scientific, medical, and law faculties; library.
144. *Melbourne, Victoria, Australia:* University of Melbourne, 647 students.
145. *Messina, Italy:* Regia Università degli Studi di Messina, 626 students. Law, medical, scientific, philosophical, and pharmaceutical faculties; library.
146. *Mexico, Mexico:* Instituto Médico Nacional. Medical faculty.
147. *Milan, Italy:* Academia Scientifico-litteraria, 97 students. Scientific school.
148. *Modena, Italy:* Regia Università degli Studi di Modena, 711 students. Law, medical, scientific, and pharmaceutical faculties; library.
149. *Montauban, France:* Belongs to Facultés de Toulouse, 85 students. Law, medical, scientific, and philosophical faculties; library.
150. *Montevideo, Uruguay:* University, 132 students. Medical, law, and mathematical faculties; library.
151. *Montpellier, France:* Facultés de Montpellier, 1,602 students. Law, medical, scientific, and philosophical faculties; library.
152. *Montreal, Canada:* McGill College and University, 1,111 students.
153. *Montreal, Canada:* Succursale de L'Université Laval de Quebeck, 605 students. Theological, medical, and law faculties.
154. *Moscow, Russia:* Imperatorskij Moskowskij Universitet, 4,691 students. Philosophical, scientific, law, and medical faculties; library.
155. *Moscow, Russia:* Duchovnaja Akademija, 218 students. Theological faculty; library.
156. *Moscow, Russia:* Lazarev Institute for oriental languages; 59 students.
157. *Munich, Bavaria, Germany:* K. Bayerische Ludwig-Maximilians-Universität, 4,705 students. Theological, law, medical, and philosophical faculties; library.
158. *Münster, Prussia, Germany:* K. Preussische Universität, 907 students. Theological and philosophical faculties; library.
159. *Nancy, France:* Université Nancy, 1,130 students. Law, medical, scientific, and philosophical faculties, and pharmaceutical school; library.
160. *Nantes, France:* École de Médecine de Nantes, 243 students.
161. *Nantes, France:* Ecole Libre de Droit, 100 students.
162. *Naples, Italy:* Regia Università degli Studi di Napoli, 5,165 students. Philosophical, law, mathematical, scientific, and medical faculties, and pharmaceutical school; library.
163. *Neuchatel, Switzerland:* Académie de Neuchâtel, 178 students. Philosophical, scientific, theological, and law faculties; library.
164. *Newcastle, England:* The colleges belong to Durham University.
(1) College of Medicine, 210 students.
(2) Durham College of Science, 1,650 students.
165. *New Zealand:* University, consisting of four colleges, 1,287 students.
166. *Nezin, Russia:* Historical and Philological Institute, 81 students.
167. *Nottingham, England:* University College, 1,902 students. Philology, law, and scientific faculties, and school of engineering; free public libraries.

168. *Odessa, Russia:* Noworossijskij Universitet, 1,116 students. Philosophical, scientific, and law faculties; library.
169. *Olmütz, Moravia, Austria:* Theologische Facultät, 191 students.
170. *Oviedo, Spain:* Universidad Literaria, 234 students. Law faculty; library.
171. *Oxford, England:* University, 3,481 students. Theological, law, medical, scientific, and philosophical faculties; Bodleian library.
172. *Padua, Italy:* Regia Università degli Studi di Padua, 1,450 students. Law, medical, scientific, and philosophical faculties, and schools of engineering and pharmacy; library.
173. *Palermo, Sicily, Italy:* Regia Università degli Studi di Palermo, 1,400 students. Law, medical, scientific, and philosophical faculties, and schools of engineering and pharmacy; library.
174. *Paris, France:* (1) Université de Paris, 12,171 students. Protestant theological, law, medical, scientific, and philosophical faculties, and schools of engineering and pharmacy; libraries.
175. *Paris, France:* (2) Facultés libres, 704 students. Law and philosophical faculties; library.
176. *Paris, France:* (3) Collége de France.
177. *Paris, France:* (4) École Libre des Sciences Politiques, 600 students.
178. *Paris, France:* (5) École Pratique des Hautes Études á la Sorbonne, 383 students. Philosophical and theological faculties; library.
179. *Paris, France:* (6) École Nationale des Beaux-arts, 2,000 students.
180. *Paris, France:* (7) École Nationale de Chartes, 69 students.
181. *Paris, France:* (8) École du Louvre.
182. *Paris, France:* (9) École des Langues Orientales Vivantes, and other special schools, 430 students.
183. *Paris, France:* (10) École Russe des Hautes Études Sociales, 360 students.
184. *Paris, France:* (11) École Normale Supérieure, 110 students.
185. *Parma, Italy:* Regia Università degli Studi di Parma, 621 students. Law, medical, and scientific faculties, and veterinary and pharmaceutical schools.
186. *Passau, Bavaria, Germany:* Theological Lyceum, 97 students.
187. *Pavia, Italy:* Regia Università degli Studi, 1,335 students. Law, medical, scientific, and philosophical faculties; pharmaceutical school and library.
188. *Pernambuco, Brazil:* Faculdade de direito, 237 students. Law faculty.
189. *Perugia, Italy:* Università Libera degli Studi di Perugia, 298 students. Law and medical faculties, and pharmaceutical and veterinary schools; library.
190. *Pisa, Italy:* Regia Università degli Studi di Pisa, 1,074 students. Law, philosophical, medical, and scientific faculties, and engineering, pharmaceutical, veterinary, and agricultural schools; library.
191. *Poitiers, France:* Université de Poitiers, 736 students. Law, scientific, and philosophical faculties; libraries.
192. *Prague, Bohemia, Austria:* K. k. Deutsche Carl-Ferdinands Universität, 1,234 students. Theological, law, medical, and philosophical faculties; library.
193. *Prague, Bohemia, Austria:* C. k. česk Universitet Karlo-Ferdinandovij, 3,459 students. Theological, law, medical, and philosophical faculties; library.
194. *Pressburg, Hungary:* Jógakademia, 246 students. Law and philosophical faculties; library.
195. *Quebec, Canada:* Université Laval, 358 students. Theological, law, medical, and arts faculties; library and museum.
196. *Ratisbon, Bavaria, Germany:* Theological Lyceum, 174 students.
197. *Regensburg, Bavaria, Germany:* Lyceum, 182 students. Theological and philosophical faculties.
198. *Rennes, France:* Université de Rennes, 1,143 students. Law, scientific, and philosophical faculties; library.
199. *Rheims, France:* École Prép. de Médecine, 92 students. Medical school.
200. *Rome, Italy:* Regia Università degli Studi di Roma, 2,348 students. Philosophical, scientific, law, and medical faculties; engineering and pharmaceutical schools; library.
201. *Rome, Italy:* A number of colleges supported by the church, with 1,065 students; also a woman's university with 160 students.
202. *Rome, Italy:* Pontificia Universitas Gregoriana in Collegio Romano, 1,026 students. Theological, law, and philosophical faculties.
203. *Rostock, Mecklenburg, Germany:* Grossherzogliche Universität, 588 students. Theological, law, medical, and philosophical faculties; library.

204. *Rouen, France:* École Prép. de Médecine. Medical school, 157 students.
205. *St. Petersburg, Russia:* Imperatorskij Universitet, 3,775 students. Philosophical, scientific, law, and oriental languages faculties; library.
206. *St. Petersburg, Russia:* Imperatorskij Vojenno-Medicineskaja Akademija, 750 students. Medical faculty; library.
207. *St. Petersburg, Russia:* Duchovnaja Akademija. Theological faculty, 242 students; also a school of military law.
208. *St. Petersburg, Russia:* Law Academy, 330 students, and several other special schools.
209. *St. Petersburg, Russia:* Hist. Philological Institute, 88 students.
210. *St. Petersburg, Russia:* Higher Courses for Women, 1,000 students.
211. *Salamanca, Spain:* Universidad de Salamanca, 1,200 students. Philosophical and law faculties; library.
212. *Salzburg, Austria:* Theologische Fakultät, 60 students.
213. *Santiago, Chile:* University with 4 faculties and 1,000 students; also Institute of Pedagogy, 162 students.
214. *Santiago, Spain:* Universidad de Santiago. Law, medical, and pharmaceutical faculties; library.
215. *Saragossa, Spain:* Universidad de Zaragoza, 966 students. Philosophical, law, medical, and scientific faculties; provincial library.
216. *Sarospatak, Hungary:* Theologische und Rechtsschule, 148 students.
217. *Sassari, Italy:* Regia Università degli Studi di Sassari, 160 students. Law, medical, and scientific faculties; library.
218. *Seville, Spain:* Universidad de Sevilla. Philosophical, law, and scientific faculties; library.
219. *Sheffield, England:* University College (belongs to Oxford University), 450 students; also a medical school.
220. *Siena, Italy:* Regia Università degli Studi di Siena, 228 students. Law and medical faculties and pharmaceutical school; library.
221. *Sophia, Bulgaria:* Visše Učiliŝte v Sofija, 495 students.
222. *Stockholm, Sweden:* Stockholms Högs Kola, 337 students.
223. *Stockholm, Sweden:* Medical Institute, 327 students.
224. *Strassburg, Alsace, Germany:* Kaiser Wilhelms Universität, 1,250 students. Theological, law, medical, philosophical, and scientific faculties; provincial library.
225. *Sydney, New South Wales, Australia:* University of Sydney, 657 students.
226. *Tokyo, Japan:* Teikoku, Daigaku, 3,213 students. Law, medical, philosophical, and scientific faculties, agriculture and school of engineering; library.
227. *Tomsk, Siberia:* Imperatorskij Tomkij Universitet, 540 students. Theological and medical faculties; library.
228. *Toronto, Canada:* University of Toronto, 1,322 students. Philosophical, law, and medical faculties; library.
229. *Toronto, Canada:* Victoria University, 250 students. Arts and theology; library.
230. *Toronto, Canada:* Three medical schools; 355 students.
231. *Toulouse, France:* Université de Toulouse, 1,955 students. Law, philosophical, scientific, and medical faculties; library.
232. *Toulouse, France:* Institut Catholique, 100 students. Theological and philosophical faculties; library.
233. *Tours, France:* École Prép. de Médecine, 103 students. Medical school.
234. *Tübingen, Württemberg, Germany:* K. Eberhard Karls Universität, 1,524 students. Theological, law, medical, philosophical, and scientific faculties; library.
235. *Turin, Italy:* Regia Università degli Studi di Torino, 2,700 students. Law, medical, philosophical, and scientific faculties and pharmaceutical school; library.
236. *Upsala, Sweden:* Kongl. Universitet i Upsala, 1,388 students. Theological, law, medical, and philosophical faculties; library.
237. *Urbino, Italy:* Libera Università degli Studi di Urbino, 161 students. Law and mathematical faculties and pharmaceutical and surgical schools; library.
238. *Utrecht, Netherlands:* Rijks Universität te Utrecht, 1,003 students. Philosophical, medical, theological, law, and scientific faculties; library.
239. *Valencia, Spain:* Universidad de Valencia, 1,738 students. Law, scientific, and medical faculties; library.
240. *Valladolid, Spain:* Universidad de Valladolid. Law and medical faculties; library.

241. *Vienna, Austria:* K. k. Universität, 6,009 students. Law, theological, medical, and philosophical faculties; library and numerous university institutes.
242. *Vienna, Austria:* Protestantische Theologische Fakultät, 31 students.
243. *Vienna, Austria:* Lehranstalt für orientalische Sprachen, 132 students.
244. *Vienna, Austria:* Consular Academy, 33 students.
245. *Warsaw, Poland, Russia:* Imperatorskij Warschawskij Universitet, 1,122 students. Philosophical, scientific, law, and medical faculties; library.
246. *Würzburg, Bavaria, Germany:* K. Julius-Maximilians Universität, 1,254 students. Theological, law, medical, and philosophical faculties; library.
247. *Zurich, Switzerland:* Schweizerische Hochschule, 924 students. Theological, law, medical, and philosophical faculties; cantonal and city libraries.

V. *Foreign universities, arranged according to countries.*

Argentina: Cordoba, Buenos Ayres.
Australia: Adelaide, Melbourne, Sydney.
Austria: Czernowitz, Gratz, Innspruck, Krakow, Lemberg, Olmütz, Prague (German), Prague (Bohemian), Salzburg, Vienna.
Belgium: Brussels, Ghent, Liege, Louvain.
Bolivia: (Universities not mentioned in "Minerva.")
Brazil: Bello Horizonte, Pernambuco.
Bulgaria: Sophia.
Canada: Halifax, Kingston, Montreal, Quebec, Toronto.
Cape Colony: Cape Town.
Chile: Santiago.
China: (College of Foreign Knowledge.)
Colombia (Universities not mentioned in "Minerva.")
Corea: (None.)
Costa Rica: (None.)
Cuba: Habana.
Denmark: Copenhagen.
Ecuador: Quito.
Egypt: Cairo.
England: (See also Ireland, Scotland, and Wales, below.) Birmingham, Bristol, Cambridge, Durham, Leeds, Liverpool, London, Manchester, Newcastle, Nottingham, Oxford, Sheffield.
France: Aix, Algiers, Angers, Besançon, Bordeaux, Caen, Clermont, Dijon, Grenoble, Lille, Limoges, Lyon, Marseille, Montauban, Montpellier, Nancy, Nantes, Paris, Poitiers, Rennes, Toulouse, and four separate medical schools.
Germany: Bamberg, Berlin, Bonn, Braunsberg, Breslau, Cologne, Dillingen, Eichstätt, Erlangen, Frankfort, Freiburg, Freising, Giessen, Göttingen, Greifswald, Halle, Heidelberg, Jena, Kiel, Konigsberg, Leipzig, Marburg, Munich, Münster, Ratisbon, Rostock, Strassburg, Tübingen, Würzburg.
Greece: Athens.
Guatemala: (None.)
Haiti: (None.)
Hawaii: (None.)
Honduras: (None.)
Hungary: Agram, Budapest, Debreczin, Eperies, Erlau, Fünfkirchen, Grosswardein, Kaschau, Kecskemet, Klausenburg, Pressburg, Sarospatak.
India: Allahabad, Bombay, Calcutta, Lahore, Madras.
Ireland: Belfast, Cork, Dublin, Galway.
Italy: Bologna, Cagliari, Camerino, Catania, Ferrara, Florence, Genoa, Macerata, Messina, Modena, Naples, Padua, Palermo, Parma, Pavia, Perugia, Pisa, Rome, Sassari, Siena, Turin, Urbino, and several colleges.
Japan: Kyoto, Tokyo.
Mexico: (Schools of law, medicine, engineering, etc.)
Montenegro: (Theological seminary, not mentioned in "Minerva.")
Morocco: (None)
Netherlands: Amsterdam, Groningen, Leyden, Utrecht.
New Zealand: One university.
Nicaragua: (None.)
Norway: Christiania.
Orange Free State: (None.)

Paraguay: (National college, not mentioned in "Minerva.")
Persia: (Several colleges, not mentioned in "Minerva.")
Peru: Lima.
Palestine: Jerusalem.
Philippine Islands: Manila.
Portugal: Coimbra.
Roumania: Bucharest, Jassy.
Russia: Kharkof, Dorpat, Helsingfors, Yaroslavl, Kazan, Kief, Moscow, Nezin, Odessa, St. Petersburg, Warsaw.
Salvador: (One university, not mentioned in "Minerva.")
Santo Domingo: (None.)
Scotland: Aberdeen, St. Andrews, Dundee, Edinburgh, Glasgow.
Servia: Belgrade.
Siam: (None.)
Siberia: Tomsk.
South African Republic: (None.)
Spain: Barcelona, Cadiz, Granada, Madrid, Oviedo, Salamanca, Santiago, Saragossa, Seville, Valencia, Valladolid.
Sweden: Gottenborg, Lund, Stockholm, Upsala.
Switzerland: Basel, Berne, Freiburg, Geneva, Lausanne, Neuchatel, Zurich.
Turkey: (Several colleges not mentioned in "Minerva.")
Uruguay: Montevideo.
Venezuela: (Universities not mentioned in "Minerva.")
Wales: Aberystwith, Bangor, Cardiff, Lampeter.

VI. *Technological schools.*

1. *Aachen* (Aix-la-Chapelle), *Prussia, Germany*, founded 1870; 714 students.
2. *Berlin, Prussia, Germany*, founded 1779; 4,811 students.
3. *Brunswick, Germany*, founded 1745; 509 students.
4. *Brünn, Austria*, founded 1850; (German) 403 students.
5. *Brünn, Austria*, founded 1899; (Bohemian) 177 students.
6. *Budapest, Hungary*, founded 1856; 1,780 students.
7. *Copenhagen, Denmark*, founded 1829; 500 students.
8. *Coopers Hill, England*, founded 1885; 131 students.
9. *Darmstadt, Hesse, Germany*, founded 1868; 1,803 students.
10. *Delft, Netherlands*, founded 1864; 875 students.
11. *Dresden, Saxony, Germany*, founded 1828; 1,292 students.
12. *Glasgow, Scotland*, founded 1886; 596 students.
13. *Gratz, Styria, Austria*, founded 1811; 425 students.
14. *Hanover, Prussia, Germany*, founded 1879; 1,729 students.
15. *Helsingfors, Finland, Russia*, founded 1847; 372 students.
16. *Karlsruhe, Baden, Germany*, founded 1825; 1,635 students.
17. *Kharkof, Russia*, founded 1884; 1,000 students.
18. *Kief, Russia*, founded 1898; 846 students.
19. *Lemberg, Galicia, Austria*, founded 1844; 725 students.
20. *Lille, France*, founded 1885; 100 students.
21. *Lisbon, Portugal*, founded 1837; 462 students.
22. *London, England*, 2 institutions, founded 1884; 277 and 187 students.
23. *Lyon, France*, founded 1857; 98 students.
24. *Madrid, Spain*, 2 institutions, founded 1835 and 1844; 223 and 80 students.
25. *Marseille, France*, [1891]; 30 students.
26. *Milan, Italy*, founded 1863; 552 students.
27. *Moscow, Russia*, 2 institutions, founded 1832 and 1896; 1089 and 380 students.
28. *Munich, Bavaria, Germany*, founded 1827; 2,738 students.
29. *Nancy, France*, 2 institutions, founded 1890 and 1900; 96 and 51 students.
30. *Naples, Italy*, founded 1863; 141 students.
31. *Oporto, Portugal*, founded 1877; 200 students.
32. *Paris, France*, founded 1794; five schools, with 1,538 students.
33. *Prague, Bohemia, Austria*, founded 1806 and 1868; 2 schools, with 1,909 students.
34. *Riga, Russia*, founded 1832; 1,701 students.
35. *St. Petersburg, Russia*, founded 1828; 5 schools, with 3,100 students.
36. *São Paulo, Brazil*, founded 1894; 175 students.
37. *Sheffield, England*, founded 1885; 750 students.
38. *Stockholm, Sweden*, founded 1798; 450 students.

47. *St. Petersburg, Russia* [1773], Mining Institute; 550 students.
48. *St. Petersburg, Russia* [1880], Forestry Institute; 516 students.
49. *Tharandt, Saxony, Germany* [1811], Forestry Academy; 54 students.
50. *Toronto, Canada* [1888], Agricultural College.
51. *Vienna, Austria* [1872], Agricultural Academy; 366 students.

NOTE.—Other similar higher institutions of learning are connected with universities, hence they are not mentioned in this list of separate institutions.

VIII. *Veterinary schools.*

1. *Alfort, France* [1766]; 294 students.
2. *Berlin, Germany* [1790], 483 students.
3. *Bucharest, Roumania* [1861]; 95 students.
4. *Budapest, Hungary* [1786]; 318 students.
5. *Cordoba, Spain* [1802]; 74 students.
6. *Copenhagen, Denmark* [1858]; see above in VII, 340 students.
7. *Dorpat, Russia* [?]; 311 students.
8. *Dresden, Germany* [1774]; 174 students.
9. *Hanover, Germany* [?]; 273 students.
10. *Kazan, Russia* [?]; 456 students.
11. *Kharkof, Russia* [1804]; 150 students.
12. *Lemberg, Austria* [1881]; —— students.
13. *Leon, Spain* [?]; 99 students.
14. *London, England* [1791]; 230 students.
15. *Lyon, France* [1761]; 180 students.
16. *Madrid, Spain* [1792]; 344 students.
17. *Milan, Italy* [1791]; 157 students.
18. *Munich, Germany* [1790]; 306 students.
19. *Naples, Italy* [?]; 200 students.
20. *Santiago, Spain* [1820]; —— students.
21. *Saragossa, Spain* [?]; 276 students.
22. *Stockholm, Sweden* [1821]; 57 students.
23. *Stuttgart, Germany* [1821]; 135 students.
24. *Toulouse, France* [1825]; 164 students.
25. *Turin, Italy* [?]; 91 students.
26. *Utrecht, Netherlands* [?]; 83 students.
27. *Vienna, Austria* [1764]; 258 students.
28. *Warsaw, Russia* [?]; —— students.

CHAPTER XX

COMMERCIAL EDUCATION IN SWITZERLAND.[a]

[In the summer of 1901, the "International Union for the Promotion of Commercial Education" met in Zurich, Switzerland. Previous meetings of this union were mentioned in the Annual Report of 1900–1901. For the meeting in Zurich the editor of the Swiss "Lehrerzeitung" published July 6, 1901, an account of what the Swiss Confederation does for commercial education. Prof. Theophil Bernet-Hanhart prepared the article, which is here given in English with unimportant omissions.]

Introductory Remarks.

During the year 1888, about 125,000 persons were engaged in commercial occupations in Switzerland. The latest census, the details of which have not yet been published, will show a much larger number. In view of the unprecedented development of industry and commerce, the growing diversity of business pursuits, and ever keener competition, all members of the commercial class, especially clerks—except those in the most subordinate positions—require a good education. This conviction is constantly gaining ground. Whoever aims at a better position in business must possess a great deal of technical information and a knowledge of languages. In regard to the latter, far greater demands are made upon merchants in Switzerland than upon those in many parts of Germany, in France, England, and Italy.

That commercial education in Switzerland is on a higher plane than almost anywhere else is, therefore, not a mere accident, but the necessary consequence of the peculiar conditions of its commercial class. Owing to their thorough knowledge, Swiss business men have acquired a high reputation in the world of business; large numbers of Swiss clerks have won prominent positions with foreign firms, and their influence has reacted upon economic conditions in Switzerland with good effect. The greater the efforts to raise the educational standard of the commercial class in neighboring countries, however, the more we must strive not to be thrown into the shade.

The people of Switzerland have other reasons to occupy themselves with the subject. Every year large sums from the Federal treasury are spent on commercial education. In the year 1891 the Federal Government appropriated 41,616 francs for public commercial schools and mercantile associations; in 1900 the appropriations for similar purposes had increased to 300,147 francs (about $60,000).[b] These figures are taken from official records; the following are based partly upon official reports, partly upon private calculations and estimates. The individual Cantons (States) and communities have appropriated about 720,000 francs for commercial education. Tuition fees and contributions of business firms amounted to about 382,000 francs.

[a] Articles on similar subjects published in previous Reports of the Commissioner of Education:
Commercial education in Europe. An. Rep. of 1896–97, p. 207.
The German commercial clerk. An. Rep. of 1899–1900, p. 835.
Industrial and commercial schools in Hungary. An. Rep. of 1899–1900, p. 865.
Commercial schools and commercial universities in central Europe. An. Rep. of 1900–1901, p. 21.
Consular reports on commercial schools. An. Rep. of 1899–1900, p. 1431 and p. 1440.

[b] However much this subsidy is appreciated, it must be stated that it falls far below that which is offered to industrial and agricultural education on the part of the Federal Government. In the year 1897, 1,908,773 francs (about $400,000) were appropriated for industrial and agricultural schools, while the commercial schools received only 168,710 francs from the Federal treasury. (Huber, Swiss Yearbook of Education, 1897.)

In 1900 the total expenditure for commercial education in Switzerland amounted to more than 1,400,000 francs. These are noteworthy sums of money, and it seems worth while to learn to what purposes they were applied.

Historical Review.

Before examining the present conditions of commercial education in Switzerland, we will take a look at the past. A better understanding of the whole is thus gained, and many a peculiarity is easily explained in the light of its historical development.

THE EDUCATION OF SWISS MERCHANTS IN FORMER TIMES.

In former centuries, the sons of rich merchants received a good school education, according to the views of their times, and much private instruction. After leaving school they served an apprenticeship of from two to four years, after which they traveled abroad. In other cases, merchants gave their sons direct to foreign business friends for a term of apprenticeship, and took their children into their own business "in exchange." The counting houses of large business firms abroad were the universities for the merchant class, as they afforded the best opportunity for learning foreign languages and for the study of the world's markets.[a] On the other hand, no one paid any attention to the improvement of the "clerks" or "factors," for the obvious reason that their work and positions were subordinate; moreover, their number compared with that of present times was insignificantly small. Dr. Tr. Geering states that in Basel, in the sixteenth century, most business houses were conducted without clerks, and that fourteen large firms collectively employed only nineteen clerks. In Zurich, mostly young men from the country were appointed as commercial clerks, who, with modest means, spent their whole lives in the same office. They were not allowed to establish a business of their own, and even a change of position was often forbidden in their contract of engagement. (New Year's Bulletin of the Zurich Orphan Asylum, 1880.)

In later times, one hundred and fifty years ago and more, those who were intended for business pursuits attended, in common with other children, at least the so-called German schools, likewise known as citizens', secular, or writing schools. Reading, writing, in most cases also arithmetic, and some Latin were taught. Teachers and methods of instruction in these schools were nearly all wretched. Those who desired a better education attended the Latin school, in which not only the greatest attention was given to the Latin language, but that was also the medium of instruction in other branches. It is worthy of notice that the Latin language down to the time of the Reformation, and long afterwards, occupied a more prominent position than any modern language does at the present time. According to the History of Zurich Schools, by Prof. U. Ernst, there was, at that time, no provision in Switzerland or anywhere else for the special education of business men and mechanics. He who had learned to read and write was placed in the highest grade of the German school at the Newmarket (a boys' school established in 1586). There—

Söllend sy lernen eine rechnung ussstellen, eine rechte überschrifft machen, den anfang und ussgang eines brieffs uffsetzen, zyt, jar und kalender verstan. (They shall learn to make out a bill, write correct addresses, draw up the beginning and end of a letter, and understand time, year, and the calendar.)

If in the commercial city of Zurich the study of arithmetic, so necessary to a merchant, was among the optional branches, being one of those to be paid for extra, it was looked upon elsewhere as an easily dispensable luxury. As late as the eighteenth century, arithmetic was taught in but one school throughout the Canton of Basel, in that of Liestal. Higher education was likewise in a state of petrifaction.

[a] This practice was in vogue during the first part of the nineteenth century all over Teutonic Europe. See Freitag's Debit and Credit (Soll und Haben), which contains a vivid description of this practice.—Translator.

It was only during the last decades of the eighteenth century that education began to show signs of progress. Citizens' or burgher schools and higher institutions were reorganized, the classic philological studies became less prominent, and more attention was given to the mother tongue and the exact and historical sciences. In Zurich, in 1765, Heidegger, who in later years became a highly respected burgomaster of the city, presented a well-prepared plan of reform, which was not carried out until about ten years later. New schools were established, as the school of arts (1773) and the girls' high school (1774). We shall have to refer to the first mentioned again, as it was chiefly designed for boys who intended to devote themselves to business. The efforts to improve popular and "higher" schools[a] have never ceased since, though the years of the Revolution did much to retard and injure them. We need not present here the phases of development of education in general. Knowing the opinions expressed by many merchants of Switzerland, we shall merely state that the people's schools, i. e., primary and grammar schools as they are to-day, are satisfactory in point of organization, and in general meet the requirements of the commercial class. However, owing to the great demands which are made of business men at present, all are of opinion that these people's schools require supplementary institutions for special education.

ORIGIN OF COMMERCIAL SCHOOLS.

So-called ciphering and bookkeeping schools were the forerunners of our commercial schools. In different cities abroad retired tradesmen, in the capacity of "teachers of bookkeeping, writing, and arithmetic," opened such schools, which usually passed out of existence with the death of their founder and only teacher. Thus Venice (from 1497), Nuremberg, and Leipzig (1680–1723) are reputed to have had schools of this kind. True commercial schools with a comprehensive course of study were first opened in Lisbon (1759), Paris (1767), Hamburg (1768), Vienna (1770, the Imperial Commercial Academy, with a practice department), Mülhausen (1781), etc. The college "La Châtelaine" in Geneva is the only private commercial school in Switzerland that dates its origin back to the eighteenth century (1776).

The oldest public commercial school of Switzerland is the Cantonal Commercial School in Zurich, a department of the industrial school. The present and past history of this, not only the oldest but also the largest commercial school of German Switzerland, has been prepared by loving hands in two supplements to the annual catalogues of the cantonal school: Contributions to the History of the Zurich Cantonal School, Part II, 1883, by Rector F. Hunziker, and The School of Arts in Zurich, the first Industrial School, 1900, by Dr. U. Ernst. From these and other sources at our command we take for our brief account only the following: The efforts toward educational reform in general during the second half of the eighteenth century led, as stated before, to the establishment of the school of arts. This institution opened its doors to students in 1773; it was not a purely commercial school, but was also designed for the education of young men who intended to become artists or skilled mechanics. Nevertheless, it is worthy of notice that repeated attention was drawn to the fact that merchants should know and learn more, and for that purpose required a new and special institution; that the board of trade undertook to contribute a large yearly subsidy; and that, from the very beginning, practical arithmetic, bookkeeping (combined with business correspondence), penmanship, French, and geography (with especial attention to the products which commerce and industry are particularly concerned with and trade routes), besides mathematics, natural history, drawing, and general history, were taught. The teacher of arith-

[a] By this term Swiss, Austrians, and Germans always mean schools higher than elementary.—*Translator*

metic at this school, Jakob Locher, can, therefore, justly be regarded as the first Swiss commercial teacher. Zurich's example was followed by other cities, for instance, Berne. At this period foreign universities, Dutch (Leyden, Utrecht) and German (Göttingen, Halle), were frequently attended by Swiss students. It was not a rare occurrence that even young-established merchants spent two or more terms at a university. (Gerold Meyer von Knonau, The Canton of Zurich, II, 1846.)

To afford those young men who desired a higher education after leaving the school of arts, or the corresponding classes of the classical high school, and before entering upon a practical career, the opportunity of obtaining it in Zurich a private association was formed which founded the Technological Institute January 4, 1827, and continued to manage it until the cantonal school was established. Besides mathematics and the natural sciences, the following languages and commercial studies were included in the course: Commercial arithmetic and bookkeeping, commercial and banking law, German, French, English, and Italian. The State or cantonal school was opened on April 22, 1833, in the industrial department of which commercial arithmetic, bookkeeping, and countinghouse practice were taught. A reorganization, in the year 1839, divided the industrial school into three sharply defined sections: The mechanical technical, the chemical technical, and the mercantile. By a very considerable extension of the time given to commercial studies the mercantile section received more the character of a special school in 1855. Reorganizations of a less radical nature gradually led to a broader plan from the standpoint of a practical business as well as of a general education. The course was lengthened and the mercantile section received a more independent character contrasted with the technical sections. The plan of study approved on February 6, 1901, by the minister of education of the Canton contemplates a course of four and a half years. The higher classes constitute the commercial university. At present the whole institution, which bears the title of "Cantonal Commercial School and Preparatory School for Administrative Service," numbers 150 students in six classes. The example of Zurich was imitated by the following cities, in which have been established commercial secondary schools, some of them being independent cantonal or city schools and others departments of cantonal industrial or high schools: In 1842, St. Gall (mercantile division of the cantonal school); 1853, Frauenfeld; 1856, Berne and Schwyz; 1860, Zug; 1861, Winterthur (mercantile division of the city industrial school); 1865, Chur; 1869, Lausanne; 1874, Winterthur (commercial section of the cantonal technological school); 1882, Basel; 1883, Lucerne and Neuenburg; 1888, Geneva; 1890, Chaux-de-Fonds; 1892, Soleure; 1895, Bellinzona; 1896, Aarau and Locle; 1897, Freiburg, and, finally, 1899, again St. Gall (business academy and school of commerce).

Plans have been made for the establishment of commercial schools in Burgdorf and Biel, and their establishment is now assured. All these institutions are intended, principally, for male students, though Aarau, St. Gall, Soleure, Locle, and Winterthur also admit young women. Other cities have special commercial schools for girls, as Berne, since 1876; Biel, 1881; Zurich, 1884; Neuenburg, 1897; Geneva, 1898 (department of the secondary school), and Geneva, 1899 (department of the school of domestic economy). There are, consequently, 27 public commercial schools in Switzerland with courses from one to five years.[a] To these State and municipal institutions must be added at least 14 private commercial schools and institutes, which enjoy a good attendance. The students are mostly young men from other countries, to whose needs and preparatory education the public schools are not, and are not intended to be, adapted. These private schools afford them the training which they require and value.

[a] It is difficult to classify these schools, some being rather elementary in character, some secondary, and a few aspire to the rank of commercial universities.—*Translator.*

ORIGIN OF COMMERCIAL SUPPLEMENTARY SCHOOLS.

Whereas the purpose of the schools hitherto mentioned is, without exception, to prepare young persons for a business career before entrance upon its practical duties, and, at the same time, to afford them a higher general education than that given in the elementary schools, the aim of a second and not less important category of mercantile schools is to give apprentices or clerks with some practical experience further theoretical training. The earlier boys leave school, the more insufficient their theoretical knowledge is, and the more necessary it is for them to continue the study of commercial branches and languages in connection with their daily work. Most business clerks have left school after completing the course of the second, a small proportion after attending the third class of a secondary school or the lower classes of a commercial school. For them the supplementary school is a pressing necessity. Formerly, as a usual thing, there was nothing to do but to take private lessons from teachers often incompetent. As, however, private instruction was too expensive for unsalaried apprentices, energetic and ambitious young men conceived the thought of coming together to receive instruction in common. Associations of young men with morning, afternoon, and evening courses of study were formed in Zurich and Berne, 1861; St. Gall, Basel, and Soleure, 1862; Winterthur, 1863, etc. From small beginnings the courses of many of these associations have developed into well-appointed commercial supplementary schools; it may, indeed, be affirmed that the schools maintained by the efforts of the present commercial associations are of the first rank. Many who owe promotion and success in business to these associations have remained true to them; for years, not only young merchants, but also mature men, have formed the membership of these commercial associations. Until the beginning of the nineties, consequently for three full decades, these associations supported their schools by their own efforts and with their own means, and have, therefore, won great merit for the education of the commercial class. Only a few cities, St. Gall and Geneva for female clerks, Zurich and Neuchatel, have public supplementary schools. On the other hand, a number of communities contribute large sums to the support of the courses of the commercial associations. Many Cantons also grant appropriations to commercial supplementary schools, but the most important factor is the powerful financial support which (since 1891) the Federal Government has granted in increasing measure for commercial education. A new and vigorous progress dates from that year.

At present the Federal Government contributes to the support of 60 commercial supplementary courses in 57 different places in Switzerland and 1 school each in Paris and London. Instead of giving an enumeration of these 60 institutions, we have taken the trouble to investigate how many cities in Switzerland have no such schools. The noteworthy fact was disclosed that no community with over 10,000 inhabitants is without a commercial supplementary school. We may except the suburban communities of large cities, as the clerks there resident work mostly in the cities and profit by their centrally located and well-arranged institutions. Of all independent cities with more than 5,000 inhabitants only 7 are without such a school. Besides the 60 receiving support from the Federal Government, there are in a few of the larger cities commercial supplementary courses maintained by communities or associations that have never presented any petition for Federal appropriation.

It would be very interesting to compare the schools of Switzerland with those of other countries. A statistical exhibit of the business schools of all, or even of the principal commercial States, however, would be too great a digression. A few facts must suffice. In his recently published study, The Commercial School Idea in Saxony, 1900, Prof. Bruno Zieger, of Dresden, remarks how large the number of commercial schools in Saxony (the "classical country of commercial education") is in comparison with that of other countries. In Prussia, for instance, such educa-

tional facilities are lacking in 110 cities with more than 10,000 inhabitants. Now, it must be pointed out that, with respect to the number of its commercial schools and commercial courses, Switzerland is in advance of Saxony, not only relatively, but also absolutely. Although Saxony has fully half a million more inhabitants, it has only 6 public secondary commercial schools for young men; Switzerland 21. In Switzerland there are 6 such schools for young ladies; Saxony has 5. Switzerland has more than 60 apprentice schools and mercantile courses; Saxony 56. On the other hand, Saxony has a commercial university connected with the old university at Leipzig.

EFFORTS TOWARD THE ESTABLISHMENT OF A COMMERCIAL UNIVERSITY IN SWITZERLAND.

A few facts concerning the efforts toward the establishment of a commercial university in Switzerland may be permitted. Many attempts to found such an institution as a department of the Federal polytechnic institute proved futile. In 1891 the Federal Congress considered the question at length on the occasion of a petition presented by the Swiss Commercial Union. The motion was defeated by but a small majority in both houses. It may be considered an accepted fact that the Federal legislative authorities do not want a commercial university connected with the polytechnicum. The departments of education of the two States (or Cantons) of Zurich and Berne have therefore allowed students of their commercial secondary schools who hold a satisfactory certificate of graduation after a four years' course, the privilege of matriculation at their universities. The faculties of the political sciences at both universities are so organized that the lectures on economics and social science, and the seminars on commercial legislation or policy, finance, and commercial law, are combined with those on jurisprudence. He who is preparing himself for the higher positions in commerce or governmental administration, or is educating himself to be a commercial teacher, usually concludes his theoretical training with this university course.[a] Of course this arrangement is only temporary, as the introduction of specifically commercial sciences into the courses of university lectures indicates the need of the establishment of a commercial university. St. Gall endeavored to meet the want of a higher commercial education by the opening of a commercial academy of first rank, and in Basel the authorities are considering a scheme for the establishment of a commercial university with a section devoted to the preparation of teachers.

GENERAL REVIEW OF THE PRESENT STATUS OF COMMERCIAL SCHOOLS.

Having traced the development of commercial education in Switzerland, and having shown that with regard to the number of its commercial schools and supplementary courses that country ranks first in order, we shall now endeavor to give a condensed statement of the purpose, condition, and organization of the existing institutions.

COMMERCIAL SCHOOLS, THEIR PURPOSE AND CONDITION.

In 1900 the 27 public commercial schools of Switzerland numbered about 1,550 male and 250 female students, besides 300 students of special branches. The city commercial school in Neuchatel had the largest attendance; the cantonal school in Zurich followed next in order, while the commercial department of the girls' high school of that city is the best attended commercial school for girls in Switzerland.

[a] Recently the government council of the Canton of Berne passed an ordinance according to which applicants who have taken a three years' academic course and have had at least one year's experience in business are eligible to examination for the position of commercial teachers of secondary schools. For lower schools the requirements are not so rigid.

Applicants must be 14, for some schools 15, years of age. Before entering, therefore, they will have had at least eight and often nine or more years' general instruction (in primary and grammar schools), and are ready to begin at once with technical branches and foreign languages. According to the purpose of any one institution, students receive a general secondary or a special technical education. All contemplated or proposed changes in recent times, however, tend in the latter direction, for commercial houses are willing to shorten the otherwise strict term of three years' apprenticeship for those only who have received a thorough technically mercantile education. Whether the period of this apprenticeship is abridged or not is a very important question for a young man of 18 years of age. Attendance in the higher classes is essentially influenced by such an abridgment. It is a fact easily confirmed by many proofs that merchants are recognizing to a greater extent every year the value of completing the entire course of a commercial school. Indeed, it often happens now that graduates from such schools receive at once positions as clerks with a suitable salary without any term of apprenticeship.

The commercial schools of Switzerland are, to a greater degree than those of surrounding countries, forced to take the availability of their graduates for immediate practical work into consideration. In Germany, Austria-Hungary, and France, attendance at a public secondary commercial school entitles to the privilege of abridged military service, just as does attendance at any classical high school; the commercial schools which claim this privilege, however, are obliged to give full attention to general education—that is, to culture studies. Attendance does not suffer thereby; on the contrary, the school authorities consider the privilege one of the strongest means to increase the number of students. Any father who destines his son to be a merchant, naturally prefers to send him to a school which allows him the privilege of only one year's military service, and besides gives him a more or less broad technical education. In Switzerland, like considerations carry no weight, as the Swiss army organization grants no favors to the better educated. Parents base their decision as to whether and how long their sons are to attend a commercial school on the extent to which they are fitted for a successful business career by a higher general and technical education.

As has been said, not all Swiss commercial schools follow the same practical plan; nor are their standards equally high. The general rule is a three years' course; Berne, Freiburg, Neuenburg, and Zurich have a four, Bellinzona[a] a five years' course. Most commercial schools for girls, including the mercantile department in Frauenfeld, have only a two years' course; the cantonal school in Trogen and the city school in Winterthur have only a one year's course. Formerly there were more schools with a course of one or two years; but as the federal law lays down the rule that only institutions of at least three grades are able to afford a higher commercial education, and therefore have a claim to federal support, a number of local boards have raised the standard of their commercial schools by extending the course of study.

In strong contrast to the gratifying fact of the improvement of schools are the very numerous instances of students leaving before they have completed the course. It seldom happens that more than half of those admitted take the final examination and graduate. All commercial schools meet with the same experience to a greater or less degree. From the standpoint of both schools and students, this circumstance is to be regretted. An effort, not altogether unsuccessful, has been made to counteract the evil by such means as laying stronger emphasis on the purely commercial branches, giving more attention to actual counting-house practice, placing graduates in desirable positions, and maintaining closer relations between schools and homes.

[a] See An. Report of the Commissioner of Education of 1899–1900, Vol. I, p. 843.—Translator.

The condition of affairs can never be brought about that all students will remain to graduate; it must not be forgotten that many mercantile firms, for good reasons, insist upon a three years' apprenticeship beginning with the sixteenth year of age at the latest. Family considerations, health, etc., often require students to leave before completing the course.

Commercial School of the city of Neuenburg, Switzerland.

In view of these conditions, the demand could rather be made of the schools to have the curriculum so arranged as to make leaving a lower grade possible without suddenly breaking off courses hardly begun. The new order of studies for the cantonal commercial school in Zurich has been based on this principle. German, French,

and English grammar, simple bookkeeping, German commercial correspondence, commercial transportation, penmanship, shorthand, and typewriting are taught exclusively in the lower grades of the school, while physics and chemistry, practical exercises in the counting-house department, banking and exchange, political economy, commercial law, Spanish, and Russian are reserved for the upper grades.

COMMERCIAL SUPPLEMENTARY SCHOOLS, THEIR ORGANIZATION AND CONDITION.

In the case of supplementary instruction, the effort toward consolidation and systematic development of formerly irregular arbitrary classes is gaining greater and greater recognition. Single courses are developing into apprentice schools with obligatory attendance, detached lectures into a unified series. A young man now does not, as was formerly too frequently the case, begin a new language one year, to take up another the next session, or perhaps not study at all during one term, and the next take up several courses, each claiming two to three hours a week, entirely too much for anyone employed in office during the whole day.

We read in the last annual report of the central committee of the Swiss Commercial Union:

> The rapid extension of the courses, the steadily increasing number of students and classes, did not allow the sections to give to the internal organization of their special schools all the attention they desired. Introducing new studies and making the classes smaller were the questions first in order. One of the most encouraging results of apprentice examinations is the present conviction, and it has been attained imperceptibly, that a rational programme with obligatory studies is a pressing necessity, if any measure of success at all commensurate with the sacrifices made in behalf of education is to be attained.

Such a programme has been introduced in the supplementary schools conducted by commercial associations in Baden, Berne, Biel, Langenthal, Lucerne, St. Gall, Winterthur, Zofingen, and Zurich. Students who desire to take language or commercial courses must strictly follow the given order, which as a rule extends over six successive semester periods with four obligatory studies each, and eight lessons a week. Supplementary schools thus organized are calculated to furnish apprentices with what is wanting in their "practical experience, which, owing to the rush of present business life and the division of labor in modern industry, is not sufficient for the training of a young man for any branch of business." (This dictum must apply to conditions as they exist here [in Zurich], for it is found in the latest report of the well-informed committee on education of the commercial association of Zurich.) At all the schools mentioned there are free supplementary courses. Older students (clerks, former students) are allowed the privilege of selecting one or more studies from the language, commercial, and art branches of the catalogue. This liberty of choice must be granted to them, as they desire only to fill a gap in their education, or take up those studies which are not admitted into a regular course through lack of time, as shorthand writing in foreign languages, political economy, the Russian and Portuguese languages, etc.

The majority of commercial supplementary schools still follow the principle of a wholly optional course of study. At a conference of representatives of schools of this kind in western Switzerland, which met in Biel in the fall of 1899, a resolution was passed recognizing the advantages of obligatory courses in theory, but declining to decide upon the immediate adoption of them in practice. Most frequently nothing more is done than to advise students more or less strongly to follow a proposed programme. Besides it must not be forgotten that in many places courses are announced in only very few studies; in some places, only in the most important foreign languages. Some schools close altogether during the summer. Of course, these are confined to the smaller towns and cities with a large outside trade.

Although attendance at supplementary schools, or at supplementary courses, is compulsory in but a few Cantons, Aargau and Vaud, for instance, these schools are well patronized. Employers generally favor and facilitate school attendance for their clerks and apprentices. Young men themselves feel the necessity of knowing more, and the desire for knowledge which animates them deserves to be commended.

Commercial Academy in St. Gall, Switzerland.

That there are indifferent and lazy clerks who would apply themselves to study only under compulsion is self-evident, and hence the desirability of compulsory supplementary education is made apparent quite often. It is most gratifying to note that in many towns where all enjoy liberty of choice, far more than half the number of

clerks make use of this opportunity for education. A statistical report which was prepared some years ago, showed that in the city of Zurich 350, nearly 48 per cent of the 734 young male clerks and commercial apprentices, attended the courses of the commercial association. This school numbers [in 1900] 650 students, not only apprentices of business houses, but also clerks, bank and railroad employees, etc. As far as known it is at present the best arranged and largest institution of this kind.

Practice countinghouse of the Cantonal Commercial School at Zürich, Switzerland.

The 59 supplementary schools that received Federal subsidies had last year a winter attendance of 5,244 male and female students. How great the proportion of the latter was could not be ascertained. According to the latest official report 15 schools admit women. In pursuance of a decree dated November 17, 1900, all supplementary schools that receive any support from the Federal treasury are obliged to admit girls if there is no special school for girls in the town.

Usually these supplementary schools, as well as secondary commercial schools, admit students only after they have reached the age of 14 or 15, and it is only after students have attained their twentieth year that they can become voting members of commercial associations; in fact, membership then is required of them. Up to this time the students enjoy no other advantages of the association except the use of the library and reading room and attendance at lectures.

Instruction in most cases must be deferred till after business hours, from 7 to 10 o'clock, a circumstance which is very prejudicial; there is no question but that after a day's work the receptive faculties of a mind not yet matured are less active, and that this system endangers physical well-being through overexertion. Arranging the classes between 1 and 2 p. m., or 6 and 7 a. m., has likewise proved unsatisfactory. A ten years' experience has shown more and more that apprentices should be allowed to attend school during business hours; classes for salaried clerks must, of course, be accommodated to their free time. Independent of the weighty pedagogical and humanitarian reasons for giving instruction during business hours (7–9 a. m.,

Cantonal Commercial Academy at Bellinzona, Switzerland.

2–3 p. m., and 6–8 in the evening), another consideration in its favor is that it is a question of instruction in those matters which students should learn in actual business, but so often fail to. Quite a number of firms allow their employees to attend these day classes. In the summer of 1899 as many as 163 classes with two hours a week were held during business hours; during the winter term the number rose to 206 classes at 24 association schools.

Details Concerning the Swiss Commercial Schools.

Attention is now drawn to a few matters which admit of uniformity of treatment for both kinds of schools (commercial schools proper and supplementary commercial courses). The following are selected as being of special importance: Courses and branches of study, appliances for teaching, examinations, size of classes, tuition fees and scholarships, officers, principals, and teachers. The comprehensive work, Commercial Schools and Mercantile Supplementary Education in Switzerland, pub-

lished by the Federal department of commerce, 1896, has been a valuable source of information for this article. A very lucid account of commercial supplementary education is also contained in a work entitled The Commercial Association of Switzerland and its Sections, 1861–1896, compiled by F. Bodmer-Weber and A. Krähenbühl. Besides these, the latest school programmes and annual reports were consulted, especially those of the Federal commercial department and the commercial teachers' association; for since the appearance of the two works just mentioned many changes have taken place in commercial school matters.

COURSES OF STUDY.

The commercial schools of Switzerland present the greatest diversity with regard to their plans of study; no two of the 27 schools have the same plan. The chief reason for this is the difference of purpose of the individual institutions, which has been already referred to. Trade and school conditions of different places, financial reasons, personal views and considerations may all have had a greater or less influence upon the arrangement of the curriculum. Unlimited freedom in the matter of studies is attended with great danger of making higher interests subordinate to less important ones. The attention of the commercial teachers' association of Switzerland has been directed to the fact that the diversity in the courses of study is a disturbing factor in the transfer of students from one school to another. And yet, such changes are very frequent on account of the shifting population in larger cities, and the popular custom of sending boys and girls away from home for one year to a part of the country where another language is spoken, in order to complete their commercial education. The board of directors of the association has been commissioned to call the attention of the conference of the Swiss department of education to this evil. Besides, Prof. W. Flury, of Soleure, under the direction of the association, has prepared a well-arranged compilation of the courses of study of public commercial schools in Switzerland, which has just been published in the third annual report of the commercial teachers' association.

Far from desiring to bring about a deadening uniformity of studies, it is nevertheless advocated that a standard order of studies for Switzerland be adopted, such as reason and experience dictate as proper for a well-organized commercial school. No one intends thereby to apply a strait-jacket. For positive as the disadvantages of absolute liberty may be, it must not be forgotten that it has not only been the source of diversity, but also of the strong development of excellent schools along original lines. Thanks to this liberty, new studies have been introduced in different places and new methods tested. That certain foreign languages and selected auxiliary studies have been taught according to the needs of the prevailing commercial or industrial lines of activity has only contributed toward assuring and increasing the sympathy of merchants for these schools. The Federal commercial department has taken the following attitude on this question:

> To a certain degree the diversity of schools—i. e., the decentralization of our mercantile education and the variety of courses of study and methods—can be considered an advantage. In this regard the Government desires no action toward uniformity. The main purpose is a steady effort toward perfection. This effort is manifest, and has developed into a wholesome rivalry among individual schools. The Federal Government needs only concern itself about the proper measure of financial support. In all other matters each school should be permitted to carry out its purpose in whatever way may seem best for its attainment. A standstill is thus most surely avoided.

The following may serve as an example of the course of study of commercial schools of a three years' course, the type most frequently found in Switzerland:

Course of study of the Superior School of Commerce of the city of Geneva.

[To be admitted, students must have attended elementary schools for at least eight years.]

Studies.	Hours per week.		
	First year.	Second year.	Third year.
Mother tongue (French)	3	3	3
Second Swiss language (German)	4	4	4
English, Italian, or Spanish (optional) each	4	4	4
Commercial arithmetic and mathematics	5	3	3
Bookkeeping	4	.....	.....
Counting-house practice	.....	6	8
Commercial law, political economy	.....	5	4
Chemistry, physics, and knowledge of merchandise	4	3	6
Geography	2	2	2
History	2	2	.....
Penmanship	3	2	.....
Stenography and typewriting	.....	.....	2
Drawing	2	.....	.....
Total	33	34	35

The courses of other commercial schools are very different from this, yet everywhere great attention is given to languages. German and French are the principal branches in all these schools, and three, four, five, and six hours a week are devoted to each. The following are either optional or obligatory: English, Italian, Spanish, Russian, and in addition to these at the commercial academy of St. Gall, Dutch, Portuguese, Arabic, modern Greek, and Malay are offered. Besides languages, according to the character of the school, either the historical and mathematical-scientific, or the commercial branches receive the most attention, without any one group being altogether neglected. History, geography, physics and chemistry, the latter two mostly combined with technology, and the study of merchandise, algebra, commercial arithmetic, bookkeeping, office work, political economy, commercial law, penmanship, stenography, and typewriting—these branches, under various designations, it is true, and grouped in different ways, with more or less time devoted to each, are included in the curriculum of all the commercial high schools of Switzerland. Some schools include instruction in religion, debating, natural history, geometry, geometrical and free-hand drawing, transportation, civics, weaving, embroidery, gymnastics, military exercises, and singing. The senior students visit buildings of exchange, factories, etc., even though it may not be expressly prescribed in the course.

The branch about which there is the greatest diversity of opinion is the business department or counting-house practice, also known under the terms model office, practice bureau, and model bank. In some schools six to ten hours a week are given to it; others make no mention of it whatever in their study programmes. Whether it be known by one name or another, nearly all schools have a practice department in its simplest form. Students, under a teacher's direction, enter a short series of business transactions in their books, and at the same time make all the necessary calculations and write all the requisite letters. However, there is a great difference between this and the business department in its highest state of development, in which a whole class (or in very large classes a section) represents a commercial house which conducts actual or fictitious business with real business firms and merchants through regular correspondence, and in which each pupil receives his own independent work to do. Teachers, mostly former merchants, give the necessary suggestions and explanations, but otherwise confine themselves to

supervision and control, while the students attend to all the work like clerks in a place of business. The schools of Zurich, Bellinzona, and Aarau have departments of this kind. The "bureaux pratiques" connected with the senior classes of the schools of Geneva, Neuchatel and Chaux-de-Fonds, are similarly organized. At only a few schools students form fictitious firms with one or more members and conduct a regular correspondence. In all instances correspondence is conducted in foreign languages as well as in the vernacular. In some departments books are also kept in foreign languages.

In commercial supplementary schools for apprentices and clerks already employed there are, of course, no practice departments. A number of general studies are also omitted, as the students need all their surplus time and energy for the most necessary branches. Still the number of studies included in the regular course of the larger association schools is quite considerable—French, English, Italian, Spanish, Russian, and German, both as mother tongue and for foreigners; bookkeeping, commercial arithmetic, correspondence, commercial geography and law, law of exchange, penmanship, stenography, and typewriting. Moreover, occasional courses are held, chiefly in form of lectures on selected topics, such as technology, history and art, law and political economy, German and foreign literature. Finally, the departments of music and gymnastics of the cantonal associations, which show good results, are open to those who attend the supplementary courses.

TEXT-BOOKS USED.

In both the secondary and supplementary schools the same manuals or text-books and readers are used. Some are published in Switzerland, some abroad. Great liberty of choice prevails. A list of the text-books in use at Swiss commercial schools gives 63 different ones for the French language alone. A number of Swiss authors have written very valuable manuals and text-books. It is impossible to give a complete list, but the works on commercial science of the Swiss authors, Schaer, Hügli, Wick, may be mentioned, as well as the foreign text-books of Baumgartner, Schmidlin, Schilling (Spanish grammar), Graziano, and Kürschner. Nevertheless, the supplementary schools especially are suffering from the lack of condensed cheap guides or manuals adapted to Switzerland. Upon repeated requests, the Swiss commercial association has taken the subject in hand. A large prize was offered for a brief treatise on commercial geography, and the accepted work (in German) is about to be published. This little book is to be followed by others, and by similar ones in French. The better equipped commercial schools possess large collections of charts, pictures, blank forms, and circulars, and also samples of merchandise. Nearly all have libraries for teachers and pupils.

EXAMINATIONS AND DIPLOMAS.

An entrance examination is a regular condition of admission at commercial secondary as well as supplementary schools. All applicants are required to show that they possess the knowledge to be acquired by an eight or nine years' attendance at an elementary school. Public examinations or exercises are held at the close of each year; at secondary schools graduation examinations are held. Rules similar to and as strict as those governing the final examinations of other secondary schools apply to the graduation examinations. As a rule, representative merchants are present as experts. Students who pass receive diplomas.

Mercantile apprentice examinations take the place of graduation examinations for those who attend the courses of supplementary schools of commercial associations. These examinations afford an apprentice, or prospective clerk, the opportunity of proving what he has learned at school and during his term of apprenticeship, and

of receiving a diploma. The examination includes bookkeeping, commercial arithmetic, composition, correspondence in the mother tongue and in one foreign language, the fundamental principles of commercial law, practical knowledge (terminology, geography, and transportation), and penmanship as obligatory branches, and a number of optional studies. The necessary uniformity of standards in judging the examinations is assured by definite rules for each study, and by the participation of educational experts, appointed by the Federal Government, who propose themes and give marks. Furthermore, the committees of the different examination districts are invested with ample power to make allowance for special local demands of industry and commerce, so that the desired uniformity does not degenerate into pedantry or narrowness. Apprentice examinations were held for the first time in the spring of 1895, under the auspices of the Swiss Commercial Association. Apprentices are free to decide upon taking them. In 1900 there were 266 applicants in 13 localities; 261 received diplomas. A gratifying result of these examinations is the knowledge that they stimulate the zeal of young men, and that in many places they have been the first vigorous incentive to the introduction of a rational programme of study.

SIZE OF CLASSES.

If, in the spirit of strict self-criticism, we must confess that the condition of our commercial schools might be improved, we may also allude to a highly important question which has not been solved anywhere else so satisfactorily as in Switzerland. Dr. Eichmann, the president of the Federal department of commerce, deserves the credit for having exerted all his energies when commercial schools were placed under Federal supervision to the reduction of the number of students in class; whereas in other countries classes frequently have 40, 50, 60, or more students, much too large a number for secondary schools, the department was able to state, in 1896, concerning this question:

Until a short time since the lowest classes or grades of our commercial schools, excepting those of Chaux-de-Fonds and Soleure, were overcrowded, numbering as high as 46 students. With so large a number of students under him the best teacher can not attain satisfactory results. In teaching languages, commercial branches, arithmetic, and bookkeeping, the individuality of students must be taken into consideration. How can it be possible for students to acquire fluency in reading and conversation if each is allowed only an average of one and one-half to two minutes for reading aloud, for translation, and conversation? Or how can anyone inculcate facility in mental arithmetic, the understanding of bookkeeping and complicated commercial calculations, if the hour must be divided among 30 to 40 students, and the value of the lesson depends upon the time which the teacher devotes to each single student? The Federal educational authorities gave this evil their chief attention and required schools to provide for sufficient teachers and make arrangements for dividing the classes into smaller sections. No class (or parallel section) in languages, arithmetic, and bookkeeping was to number over 10 students. This ideal has been reached in most of the supplementary courses of commercial associations. What is possible in these private schools should be, in the course of time, also possible in public schools.

This authoritative declaration has great value for all commercial schools, although experience in different places shows that the time has not arrived for small parallel sections in languages and commercial studies, even in secondary schools. The financial condition of cities or cantons, notwithstanding Federal assistance and the fact that commercial schools should not be considered with greater favor than other secondary schools, must be taken into account. Ideal conditions are not reached at a bound. Even commercial associations under the pressure of cantonal and municipal subsidies have again begun to increase the size of their classes.

The small class system of the commercial associations has been designated an unwarrantable luxury. In our estimation this judgment is unjust, for it does not

keep in view the special character of commercial schools. They aim, more than other schools, at the greatest possible educational product in the shortest space of time. Whoever applies himself strictly ten hours a day to office work must economize his leisure in order to gain a broader education. Unless they are willing to forego a great advantage, commercial associations should not depart from the system of small classes, especially for the language courses attended by older students, apprentices, and clerks. The following example furnishes a proof. Before any Federal appropriations were granted there existed two schools in St. Gall for ten years, a free city supplementary school for clerks with large classes, and the school of the association of young merchants with very small classes and heavy tuition fees. Experience taught that the majority of diligent and ambitious apprentices joined the association.

We have every confidence that the directors of commercial supplementary schools will not yield their standpoint attained by years of effort and sacrifice. What has been defined as an ideal by the highest Federal authority, commercial associations will hold to as such. However, there must not be too much dogmatism in this matter. Whereas for older students small classes of from four to ten members are perfectly justifiable for languages, arithmetic, and bookkeeping, good reasons could be presented for organizing classes twice as large, at least for beginners and in studies taught by lectures, as the principles of commercial law and geography. School authorities will in the end not oppose this concession.

TUITION FEES AND SCHOLARSHIPS.

The greatest diversity prevails respecting the demands made upon students or their parents to cover the heavy outlay. The commercial schools of Basel and Soleure are free. Others charge as much as 250 francs a year. At some schools natives and foreigners are treated alike. At others foreigners, and justly so, are required to pay much more than students of Swiss parentage. No school can be supported, even approximately, from tuition fees alone. Cities or Cantons are obliged to grant large annual appropriations, to which, as has been already stated in detail, the Federal Government contributes a noteworthy share.

As a rule mercantile continuation schools require a tuition fee, which differs in amount. Calculated to the single hour, it varies between 5 and 30 centimes (1 and 6 cents in United States money). In a few associations instruction is given free, but, as an official report states, "experience has proved that this leads to indifference in attendance."

On the other hand, the most liberal provisions are made at both secondary and supplementary schools for poor but diligent students. In many places scholarships are granted. The Government likewise offers scholarships. Last year they amounted to 10,000 francs. They are given to needy students of the higher classes of commercial schools partly supported by Federal appropriations; also to candidates for commercial teachers' positions, studying at home or abroad, and finally to active teachers, for the purpose of continuing their education (for traveling expenses and attendance at supplementary courses).

PRINCIPALS AND OTHER OFFICIALS.

According as commercial schools have been founded by the State (Canton) or a community, form independent institutions or are departments of other general educational institutions, are they under the supervision of cantonal or municipal school authorities (frequently there is a special committee of supervisors), while the immediate direction is either in charge of a special director or department principal or is in the hands of the rector of the general institution of which the commercial school is a department (cantonal or central high school, technological institution, etc.).

The larger commercial supplementary schools are directed and managed by special committees on instruction composed of merchants and representatives of the State

or city authorities. In smaller associations, whose courses are less extensive, a committee of the association directs affairs. Moreover, Zurich, Berne, St. Gall, Lucerne, and Basel have special salaried rectorships.

The secretaryship for commercial education in the Federal department of commerce is a position of the highest influence. The holder exercises a certain superintendence over all commercial schools that make any claim to Federal support. He determines the proportion of allowance, makes the payment of the amount to the different schools (last year's in sums of from 135 francs to 56,493 francs per school), approves the courses of study of the State-aided schools, and performs other duties. The Federal department is kept acquainted with the standing and progress of the schools by reports and by regular inspection. It watches over and directs the progress of new establishments in a kindly way, and is frequently consulted by directors in the appointment of new teachers. This office was created in 1898 and is at present filled by the former rector of the technological school in Winterthur, Prof. U. Schmidlin, he having been chosen to this position by the Federal Council.

TEACHERS.

The corps of teachers of commercial secondary schools, as well as of large mercantile supplementary schools, is composed of principals and assistants. Teachers of German, of foreign languages, history, and the natural sciences must have had the same preparatory education as those of other secondary schools, but teachers of the specifically commercial branches are required to have had several years' practical experience in business.

All schools employ assistants who teach particular studies to which only a few hours a week are devoted. Such teachers are employed exclusively by many supplementary commercial schools, and often fill these subsidiary positions with great zeal and aptitude. A large number of teachers of elementary and grammar schools, special teachers of commercial secondary schools, private teachers and business employees with pronounced aptitude for teaching, are thus engaged in serving the cause of commercial education.

The teaching personnel of the commercial schools of Switzerland numbers about 500 persons.

At the educational conference of the commercial associations of Switzerland held June 13, 1897, in Zurich, the formation of a union of the teachers of all kinds of commercial schools in Switzerland was agitated, and in the following year the Swiss Commercial Teachers' Association was organized. For the first three years its headquarters were at Zurich; since then it has been changed to Geneva. At present the association has 250 members. A supplementary course for teachers of commercial schools has been established, and representative practical men have taken an active part as consulting teachers. The first course, held in Zurich during the spring of 1900, had an attendance of 57; a second course is to be held in Geneva in 1901. Besides, a valuable statistical report on commercial schools in Switzerland has been published, also a bibliography covering the most important subjects of commercial education. For nearly three years there has been a large circulation among the members of reading portfolios, for which a number of technical publications in German and French have been subscribed. The establishment of a central library has been begun. The question of the methods best adapted for the education of commercial teachers has also been minutely discussed by the association.

CONCLUSION.

Much remains to be said, and this article makes no pretense to completeness. In treating the whole of commercial education there would be necessary a detailed account of all those agencies which can only be briefly referred to here in closing.

The support which the commercial corporations of Switzerland have given to all efforts in the matter, independent of those having education in the narrower sense of the term for their object, deserves first mention. The large libraries of commercial associations and boards of trade are appreciated and largely made use of by teachers and students. And what a fund of information on technical and economic subjects is contained in the regular annual reports on commerce and industry in Switzerland, published at the headquarters of the Swiss Commercial and Industrial Association; also in reports of its component sections, limited to a less broad territorial and industrial scope; for instance, the publications of the Zurich Chamber of Commerce, the commercial board of directors of St. Gall, the silk industry association of Zurich, and the boards of trade of Basel and Geneva; finally, in the collection of consular reports published annually by the Federal commercial department. Aside from several daily papers, there are special periodical publications devoted to the educational needs of merchants, as the reports of the Geographic Commercial Association of eastern Switzerland, the Swiss commercial "Centralblatt," the bulletin of the board of trade in Geneva, etc. Many lectures and series of lectures on commercial and affiliated subjects are given annually under the auspices of commercial, economic, and geographical societies. The sections of the Swiss Commercial Association alone held 153 during the winter of 1899–1900. The institution of prize compositions on optional or specified subjects by members of the association likewise deserves to be mentioned; the best works received are printed invariably. The museums, with their rich collections of native and foreign objects of commerce and industrial products, must not be omitted, nor the incentives and knowledge which many owe to the different exhibits designed for industrial, technological, and agricultural training. To consider all these is beyond the scope of this sketch. Suffice it to state that numerous forces are everywhere cooperating willingly and with ample means at hand for the fulfillment of the great task of affording the best possible education to the commercial profession. May our country never be wanting in men who, convinced of the great importance of commercial education, will devote themselves to its interests, so that a liberally educated generation of business men may be assured to Switzerland for the future.

CHAPTER XXI.

CONSULAR REPORTS ON EDUCATION.[a]

CONTENTS.—German chambers of commerce and commercial education—Antwerp Geographical Exhibition—Admission to Italian art galleries—The Chinese language—Educational movements in China—New national school in Germany—Industrial school at Tourcoing, France—Changes in regulation for admission to technical schools in Russia—The medical school for women in St. Petersburg—The Glauchau weaving school in Saxony, Germany—Private schools in Russia—The commercial school at Tiflis, Russia—Professorship of "Railroading" in Germany—Alcoholism in France—American College in Strassburg, Germany—Proposed university for Hamburg, Germany—Primary commercial education in Germany—Educational notes from Siberia.

GERMAN CHAMBERS OF COMMERCE AND COMMERCIAL EDUCATION.

A short time ago, the Zwickau Chamber of Commerce wrote to all the various chambers of commerce and commercial bodies in the German Empire, asking what part was taken by them in supporting commercial education, the sum expended, what supervision of schools was exercised, etc.

The following answers from all parts of the Empire speak for themselves:

Aix-la-Chapelle.—The chamber of commerce uses every means in its power to promote commercial education. At the beginning of every school year, the chamber publishes in the press of the city the studies scheduled for that year, and always embodies the school reports in the annual yearbook of the chamber.

Altona.—There is one commercial school with indirectly enforced attendance. The chamber of commerce has been instrumental in forming a commercial school in the suburban town of Elmshorn. In Neumünster a similar school is maintained by the merchants' union and town corporation. Through the influence of the chamber of commerce many commercial subjects have been introduced into the public schools of Altona.

Arnsberg.—The commercial school was founded by the chamber of commerce. The sum of $32 is given annually toward its maintenance, and the chamber has full control. Prizes are given to worthy students, and members of the chamber often act as examiners. The commercial school in Neheim also receives $25 annually from this chamber.

Barmen.—The chamber of commerce has founded a commercial school, to which it gives $285 annually. Four members of the chamber, together with one representative of the city and two members of the merchant union, form the board of trustees. The chamber uses all its influence to promote the interests of the school.

Baireuth.—This chamber of commerce is at present using its influence with the Government to secure the teaching of commercial subjects in the public schools of the district. Compulsory attendance has been recommended.

Berlin.—The merchants' corporation of Berlin has supervision over six commercial schools, to which it gives a subvention of $10,000 annually. In addition, the

[a] This chapter contains information regarding educational affairs in foreign countries as reported to the Department of State by United States consuls. These reports have been in part transmitted direct to the Bureau of Education by the State Department for publication and in part reprinted from the publications of the State Department.

The technical educational terms used by the consuls in their reports have been in most cases retained, and must be understood to have generally the signification which attaches to them in the countries to which they refer.

corporation gives $550 to an institute which prepares young girls to fill positions in business houses, $250 to the Humboldt Academy, and $1,000 to the city weavers' school. The corporation also gives $1,250 each semester for the benefit of young men who wish to hear lectures on the science of commerce, etc. The corporation would like to see the attendance of apprentices at these schools made compulsory.

Bingen.—In 1888 a course of commercial education was secured to the schools of this city through the initiative of the chamber of commerce. The annual deficit (which amounts to $100 to $175) is made good by this chamber. The president and two members serve as directors.

Bochum.—There are four commercial schools in this district, to which the chamber of commerce gives $300 each year. The members of the chamber are now agitating in favor of a fifth, which will in all probability shortly be established.

Bonn.—This chamber of commerce has established a commercial school and gives $75 annually toward its support. In addition, the State, the city, and many business firms give voluntary contributions to its maintenance. Five members of this chamber belong to the school board. Prizes and books are granted diligent students, and any deficit which may occur is paid. Steps have been taken to organize a second commercial school.

Brandenburg.—This chamber of commerce has organized three commercial schools in as many suburban towns, and affiliated them with the one in this city. The chamber controls these schools, and contributes one-third of the expense which is not met by tuition. The other two-thirds are raised by the State, private individuals, business firms, etc. Attendance is compulsory for apprentices until they have passed their eighteenth year. The Brandenburg Chamber of Commerce contributes annually the sum of $40 to each of the commercial schools in Wittenberg and Kyritz, which entitles it to one member on the school board, thus giving it a voice in the arrangement of studies and the disposition of funds.

Brunswick.—This chamber of commerce has established ten obligatory commercial schools in the Duchy of Brunswick and has full supervisory control over the same. The chamber makes good one-third of the deficit which may occur in any one school year. In 1901 the sum thus paid out amounted to something more than $1,000. It has established a free course of study for girls employed in commercial houses; it gives a small sum of money each year for the purpose of enabling the teachers in these schools to travel through the different districts of the duchy, in order to thoroughly study economic conditions. A collection of all the industrial products of Brunswick has been placed on exhibition for the benefit of apprentices. There is a library in German, French, and English literature for teachers and students, and prizes are also granted.

Breslau.—The commercial school receives $250 annually from the chamber of commerce. There is an institute in the city which teaches commercial subjects to young women, and $100 is given every year toward its support. The chamber of commerce has members among the directors of both these institutions. An industrial school is to be established this year, and the chamber of commerce has agreed to pay all expenses not met by school tax, tuition, etc.

Cassel.—The commercial school in this city, which was established twenty-five years ago, has passed entirely under the management of this chamber of commerce, which has erected a building from its own funds as a home for the school.

Coblenz.—The chamber of commerce gives $125 a year toward the support of a commercial school in this city. Members of the body are on the school board.

Danzig.—The president of this chamber is one of the directors of the commercial school in this city. The chamber of commerce gives an annual stipend of $2,000 toward the maintenance of commercial courses in the public schools of St. Petri.

Dessau.—The sum of $250 is given each year toward commercial education. The chamber of commerce further grants a stipend which enables teachers to hear lectures on commercial topics during vacations.

Dortmund.—The chamber of commerce gives $900 annually to the commercial school in this city.

Dresden.—The chamber of commerce maintains a commercial school, and the president of the chamber is chairman of the board of trustees.

Duisburg.—The commercial school in this city was founded jointly by the chamber of commerce and the city corporation. The chamber gives $250 yearly toward its support.

Düsseldorf.—The commercial school of this city was founded by the chamber of commerce independent of outside assistance. It gives $400 every year toward its expenses. In addition, a course of lectures on the science of commerce, for the benefit of young business men, has been introduced. Beginning with April 1, 1902, attendance at the industrial school of Düsseldorf will be made obligatory. The

chamber of commerce will so arrange the curriculum of the commercial school as to enable the two schools to work hand in hand.

Elberfeld.—This chamber of commerce gives $300 a year to the commercial school in this city. In addition, the school receives from the chamber the interest on $700 annually.

Frankfort-on-the-Main.—The chamber of commerce gives $150 yearly toward commercial education in this city.

Frankfort-on-the-Oder.—Within the past three years this chamber of commerce has founded five commercial schools, all of which are directly under the management of the chamber, which supplies whatever funds are needed. The deficit made good by this chamber in 1901 amounted to $175. The secretary of the chamber is chairman of the board of trustees. The secretary also gives lectures throughout the district to business men who may be interested in commercial questions of the day. It is possible that four more commercial schools may be founded in this district during the next two years.

Freiburg.—The commercial school was founded by the city corporation. The chamber of commerce gives about $100 annually, which is used chiefly for prizes. Beginning with April 1, 1902, a course of lectures on commercial subjects will be introduced for the benefit of young women.

Friedberg.—The commercial school in this city was founded by the chamber of commerce, and receives $100 each year toward any deficit which may occur.

Geestemünde.—The chamber of commerce founded the commercial school in this city. The sum of $100 is given each year, as well as prizes to diligent students.

Giessen.—The three commercial schools in this city receive $125 a year from the chamber of commerce.

Görlitz.—An annual stipend of $400 is given by the chamber of commerce to the commercial school in this city. Two of the members belong to the school committee.

Göttingen.—The commercial school in Münden receives $50 a year from this chamber of commerce. One member of this chamber belongs to the board of trustees. It also gives $50 to the commercial school in Osterode.

Greiz.—The commercial school receives $150 a year from the chamber of commerce.

Graudenz.—At the instigation of the chamber of commerce, a commercial school has been founded in this city in connection with the industrial school; $300 is given each year toward its maintenance. No changes can be made in the course of study without the consent of the chamber of commerce. It is trying to establish other commercial schools in the district.

Hagen.—The commercial school in Hagen, together with the one in Gevelsberg, receive conjointly $150 from the chamber of commerce; $25 a year is further donated for library purposes.

Halberstadt.—Through the instrumentality of this chamber of commerce, ten commercial schools have been established in as many cities in the district. One member of the chamber is on every school board. Lectures are maintained during vacations for the benefit of teachers. The chamber pays $1,500 annually for the maintenance of these schools.

Halle.—Three commercial schools have been founded in this city through the united efforts of the municipal authorities, the merchants' union, and this chamber. Each organization pays $50 a year on the deficit.

Hanau.—The commercial school was established through the efforts of the chamber of commerce. One of the members is on the school board. In addition, the chamber has caused a commercial school to be established in Fulda. A commercial course for young women has also been arranged for in this city.

Hanover.—The chamber of commerce has no official connection with the commercial school in this city. School tax, tuition, etc., adequately meet the expenses of the school.

Heidelberg.—The commercial school receives $100 a year from the chamber of commerce. Two of the members are on the school board. An advanced course in modern languages and economics has been arranged for by the chamber.

Heilbronn.—This chamber gives $25 a year to be distributed as prizes to worthy and diligent students, and one of the members is on the commercial school board.

Hildesheim.—The commercial school in Hildesheim and Peine receives $400 a year from the chamber of commerce. A commercial school is shortly to be established in Alfeld.

Insterburg.—The commercial organizations of this city, with the assistance of the Government, founded a commercial school here some years ago. Members of the chamber have the right to attend the examinations. They intend shortly to set aside a sum of money for premiums.

Cologne.—The chamber of commerce watches with great interest the development

of commercial education in this city. Through its influence, evening courses have been arranged for those who have no time to attend the day courses. The commercial school of Cologne was founded and is supported by the municipal authorities of the city, acting for the people. The chamber used its influence in securing the Commercial University for Cologne in 1901.

Konigsberg.—Through the initiative of the municipal authorities, a commercial school with twelve classes has been in progress since the beginning of the year. Attendance is compulsory. This commercial organization gives $225 a year toward its maintenance.

Constance.—Two members of this chamber serve on the commercial school board in the city. All the members are permitted to attend the examinations. The chamber of commerce gives $15 a year for the purchase of prizes.

Crefeld.—The commercial school in this city was founded by the chamber of commerce, and receives annually the sum of $1,500 toward its support. One of the members belongs to the school board. The chamber intends to donate a library to the school in the near future.

Lahr.—Two commercial schools were established in Lahr and Offenburg, at the instigation of the chamber of commerce. Attendance is compulsory for apprentices. The president of the chamber is on the board of trustees. Each school receives $10 a year for the purchase of book prizes. The commercial school in this city has recently passed under the management of the municipal authorities.

Leipzig.—This chamber of commerce pays $4,000 annually for commercial education in this city. This sum is raised by private subscription from the members of the chamber.

Liegnitz.—This organization has the management of the commercial school in this city; $200 is given yearly toward its support. Prizes are granted to ambitious students.

Limburg.—This chamber of commerce is at present negotiating with similar organizations in other cities of this district, with a view to establishing a commercial school.

Lübeck.—In 1873 a commercial school was founded in this city for the benefit of apprentices, which receives $250 a year from the chamber of commerce. Another school is being organized by the chamber.

Mannheim.—This chamber of commerce gives $250 annually to the commercial school in this city. It also maintains a lecture course on commerce and economics, the funds for which are raised by the chamber conjointly with the merchants' union and bourse. It is probable that attendance at the commercial school will be made obligatory in the near future.

Magdeburg.—The commercial school in this city is maintained equally by the State, municipal government, and the chamber of commerce. The city places a building free of charge at the disposal of the school. The aggregate sum paid for maintenance, in addition to school tax, tuition, etc., amounts to $5,000 per annum, $1,500 of which is contributed by the chamber. Special courses have been introduced into this school in foreign languages, rapid calculation, double-entry bookkeeping, stenography, etc. These courses thus far have been self-supporting, but if a deficit should occur it must be made good by the chamber and the merchants' union of this city. In addition, the chamber of commerce has arranged for ten scientific lectures on commerce and economics for the merchants of this city. The expense of these amounts to $500 a year, which is partly paid from the interest on $4,000 capital donated for this purpose by one of the citizens, and partly from admission fees. During the past year, however, this chamber made good a deficit of $250 for these lectures. The total sum expended by this chamber of commerce for commercial education amounts to $2,000 annually, or fully 15 per cent of the total expenditures.

Mainz.—There is a commercial school in this city, which receives $75 a year from the chamber. There is a movement on foot throughout the Grand Duchy of Hessen to thoroughly reorganize all the commercial schools, beginning with the one in Mainz. On the 1st of April, 1902, the commercial school in this city passed under the management of the chamber of commerce.

Meiningen.—In 1884 a commercial school was established by the chamber of commerce. The yearly expenses are paid by school tax and tuition.

Münden.—In 1898 the chamber of commerce established an obligatory commercial school, which has an attendance of about 150 pupils, divided into four classes. The secretary of this chamber formerly gave a course of lectures on commerce and economics. The annual deficit, if any, is met by the municipal authorities. The efforts of the chamber of commerce to establish an obligatory commercial school in Bünde have thus far failed, owing to the antagonism of the town council of that place.

Mühlhausen in Thüringia.—The city and chamber of commerce founded the commercial school in Mühlhausen. One hundred and twenty-five dollars a year is given

toward its support, this sum being raised by a direct tax on the business firms of the city.

Mülheim-on-the-Rhine.—A commercial school was founded in the Mülheim district by the chamber of commerce, which gives $75 a year toward its support. The president of the chamber is chairman of the board of trustees.

Mülheim-on-the-Ruhr.—The commercial school in this city, which was founded by the merchants' union, has passed under the management of this chamber of commerce. Its gifts to the school amount to about $250 a year. The president of the the chamber is chairman of the board of trustees.

Münster in Westphalia.—The commercial school in this city will open on the 1st of April, 1902. Attendance is obligatory for apprentices and those holding positions who have not passed the age of 18. The State and municipal government each pay one-third of the expenses that are not met by tax and tuition. The rest is paid by the chamber of commerce and the merchants' union. The board of curators is made up of representatives of the Prussian Government, the city, the chamber of commerce, and merchants' union.

Nuremberg.—The chamber of commerce gives an annual stipend to the commercial school in this city.

Offenbach.—The commercial school in this city was founded by the chamber of commerce. The yearly deficit, if any, is paid by the members. In addition, the building, heat, light, and $75 extra each year are furnished by the chamber.

Oppeln.—There are 30 commercial schools in the district covered by the work of this chamber of commerce. These schools receive annually about $4,000 from the Government, the chamber, and the various communities interested. A movement is on foot at present to thoroughly reorganize all these schools. This chamber has offered to pay the salary of a director, who will superintend them.

Osnabrück.—The commercial school in this city was founded by the chamber of commerce and the merchants' union. Two of the members are on the school board, and the secretary is director. Steps have been taken by this chamber to organize similar schools in other towns of this district.

Plauen.—The chamber of commerce uses every means in its power to promote commercial education in this district.

Posen.—This chamber furnishes funds to three different commercial schools. It has a member on each of the school boards.

Potsdam.—The commercial school in this city was founded by this chamber. The deficit, if any, is met equally by the Prussian Government, the city, and the chamber of commerce. During 1901 the total amount thus expended was something in excess of $500. The first vice-president and two members belong to the board of curators.

Ratisbon.—The chamber of commerce gives $250 a year to the commercial school in this city.

Ruhrort.—The commercial school was founded by the chamber of commerce, which contributes $500 a year toward its support. The members of the chamber are on the board of curators. During the winter months some twenty lectures on commerce and industry are given for the benefit of merchants. The expense of this course amounts to about $200, which is raised by admission fees.

Saalfeld.—Three commercial schools receive funds from the chamber of commerce. Several of the members are on the school boards. Lecture courses are also given by the chamber.

Saarbrücken.—The chamber of commerce gives $40 a year to the commercial school.

Solingen.—The commercial school was founded by the chamber of commerce conjointly with the city. The chamber gives $150 and pays one-third of any annual deficit.

Sonneberg.—The municipal authorities have charge of the commercial school. The chamber of commerce gives $75 a year toward its maintenance. The following subjects are obligatory: German, English, French, arithmetic, geography, elementary economics, and penmanship.

Sorau.—This chamber and the merchants of the city have established three commercial schools in this district.

Stettin.—The merchants' organization gives $150 toward the maintenance of the commercial school.

Stralsund.—There is an evening commercial course in this city which receives $25 a year from the chamber of commerce.

Strassburg.—In common with the city, this chamber of commerce has assisted in establishing a commercial school and gives $500 annually to its support. Four of the members belong to the board of trustees. In addition, this chamber contributes

to a fund which enables teachers to attend lectures on commerce and industry during their vacations.

Thorn.—The chamber of commerce grants $200 annually to the three commercial schools situated in this district.

Tilsit.—There is a commercial school in this city. One-third of the deficit, if any, is defrayed by this commercial organization, the other two-thirds by the city.

Trier.—The commercial school was founded by the chamber of commerce, several members of which serve on the board of curators. Prizes, etc., are granted by the chamber.

Wiesbaden.—The chamber of commerce has founded two commercial schools in this district. One-third of any deficit is paid by members of this body.

Würzburg.—The school for apprentices in this city receives $25 a year from this chamber. Prizes are granted to two pupils each year.

Zittau.—The chamber grants small allowances to several commercial schools in this district. It has also donated books to the different libraries.

RÉSUMÉ.

There are 145 chambers of commerce, or similar organizations, in the German Empire. Of this number, 112 are actively engaged in promoting commercial education. The inactivity of the others, for the most part, is owing to the fact that they have only been recently established, or that commercial education in their districts is maintained by the merchant unions or by municipal governments. The following résumé will give a very clear idea what commercial education in Germany owes to the Empire's highly organized and powerful chambers of commerce:

I. The statistics for 1901 [a] show that 22 chambers of commerce gave $15,652 in cash to 44 commercial schools, which work entirely under their own management. Six chambers paid one-third of the deficits in 12 commercial schools with independent management; the amount is not stated. Forty-eight chambers of commerce voted the sum of $13,030 to 102 commercial schools, which were more or less controlled by these chambers. Eight chambers of commerce paid part of the deficits of 18 commercial schools, which were partially under their management. Twenty-four chambers of commerce gave small sums to 31 commercial schools for the purpose of buying prizes, books, etc. Four chambers devoted $1,697 to independent lectures on commerce and industry.

II. Twelve chambers of commerce give prizes in the shape of books, money, stipends, etc.; in 24, the members take part in the examinations; in 6 chambers of commerce districts the secretary of the chamber makes tours of inspection among the schools; 63 chambers have members on the school board of directors; 8 have arranged lectures for clerks and others holding minor positions in business houses; 3 have arranged for teachers' conferences; 1 has appointed a commission to examine all important school subjects, and another has established an industrial exhibition.

The above sketch of the work of German chambers of commerce along the line of commercial education can not be looked upon as exhausting the subject. German merchants and manufacturers tell me that they are just beginning to take an interest in the matter of education. For example, 8 chambers of commerce are at present busy with reorganizing and extending the commercial schools in their districts; 13 are agitating in favor of such schools; 7 are working to secure obligatory attendance for their schools; 6 have declared their willingness to give pecuniary assistance to the schools in their districts, if certain conditions are complied with; 6 are contemplating assuming the management of the schools in their districts, and several wish to appoint directors at the chamber's expense, introduce lectures, establish libraries, and grant prizes.

In a former report to the Department,[b] I described in detail what is being done for commercial education in Saxony. In order to prevent confusion, however, it

[a] From volume 20 des Deutschen Verbands für das Kaufmännische Unterrichtswesen, Leipzig, Verlag von B. G. Teubner.

[b] See Annual Report of 1899–1900, chapter XXVII, p. 1135.

would be well to look at the German Empire as a whole, and divide commercial education into five distinct grades:

I.—Primary commercial schools (Kaufmännische Fortbildungsschulen).
II.—Commercial schools (Handelsschulen).
III.—Advanced commercial schools (Höhere Handelsschulen).
IV.—Classified commercial courses (Handelsfachklassen).
V.—Commercial universities (Leipzig and Cologne).

It is to the primary commercial schools that German chambers of commerce give financial assistance, and it is only these schools which I have had in mind in the above report.

It will be seen, therefore, that Germany pays almost as much attention to trade education as she does to any other branch of instruction, and the methods adopted might be taken up with advantage in the United States by our chambers of commerce and other commercial organizations. What the different nations produce, what they import and export, political economy, German, Spanish, French, and the details of commerce and industry should be known to every progressive manufacturer, merchant, and business man.

ERNEST L. HARRIS, *Consular Agent.*

EIBENSTOCK, GERMANY, *May 20, 1902.*

ANTWERP GEOGRAPHICAL EXHIBITION.

The Cartographic, Ethnographic and Maritime Exposition was opened to the public on May 22. The Royal Geographical Society of Belgium has obtained for the purposes of this exhibition the assistance of the French, Dutch, Spanish, Italian, and Mexican Governments, and in addition the Queen has sent many interesting objects from her private collections.

The exhibition of ancient and modern charts, atlases, maps, globes, and projections is perhaps the most interesting that has ever been brought together, and is particularly notable for its fine specimens of the works of Mercator, Ortelius, Blaeu, Hondius, and the valuable display of those of Elisée Reclus, the great geographer of modern times.

The charts of the Ka-Tanga scientific expedition here find a place, as well as the various scientific apparatus used by the members of the mission. There is a fine map of the Lower Kongo and some remarkable relief maps of the Suez and Panama canals, the districts of Lake Geneva and the Matterhorn, as well as a large one of the surface of the moon.

The ethnographical section comprises photographs, weapons, household utensils, religious objects, articles of wearing apparel, etc., from the Kongo Museum at Terveuren, from missions in the Kongo, China, Java, and South America, besides a brilliant display of gods and goddesses from the Dutch East Indies and beautiful tapestries from the royal palace at Pekin.

In the maritime section are models of the newest types of ocean liners, furnished by the principal steam navigation lines; models of old Dutch craft and men-of-war, and of the proposed ports of Ghent, Brussels, and Heyst; souvenirs of the explorations of the Duke of Abruzzi, of the Belgian Antarctic expedition, etc.

A number of improved instruments for studying the depths of the sea, life-saving apparatus, and instruments of precision for exploring, prospecting, and surveying purposes, besides astronomical instruments, complete an exhibition that is highly interesting from both an educational and scientific point of view.

GEO. F. LINCOLN, *Consul-General.*

ANTWERP, BELGIUM, *June 9, 1902.*

ADMISSION TO ITALIAN ART GALLERIES.

The Department has received from Mr. L. M. Iddings, secretary of the embassy at Rome, under date of June 18, 1902, copies of the new regulations issued by the Royal Department of Public Instruction in Italy in regard to the free use of galleries, museums, national monuments, etc., throughout the Kingdom.

The regulations read:

ARTICLE 1. The following persons shall be exempted from paying entrance fees at the museums of antiquity, galleries of fine arts, picture galleries, archæological excavations and monuments: (*a*) National and foreign artists; (*b*) students of the history of the arts and of artistic criticism—Italian and foreign—who have published remarkable works; (*c*) soldiers and sailors; (*d*) professors, national and foreign, of archæological, historical, literary, and artistic instruction; (*e*) professors of universities, of preparatory schools, classical, technical, and governmental, and normal schools; (*f*) alumni of archæological institutes, historical and artistic, both national and foreign, of the faculty of letters and philosophy, and of the schools for engineers; (*g*) officials charged with the administration of antiquities and of fine arts; (*h*) artisans belonging to industries analogous to the arts of design; (*i*) guides who shall have obtained, after examination, a certificate proving their proficiency in archæologic and artistic knowledge.

ART. 2. Persons fulfilling the conditions of article 1, who may desire to obtain a permit for free entrance to the archæological and artistic institutes of the Kingdom, must be furnished, (*a*) for Italian artists, with an academic document attesting their identity, excepting in case of persons known for eminent merit; (*b*) for foreign artists and for foreign professors of archæological, historical, literary, and artistic instruction, with an academic document visaed by the diplomatic representative or by the Italian consul in the nation to which the artist or professor belongs, or by their ambassador or minister at Rome; (*c*) for students of history and of artistic criticism, with some one of the works they have published; (*d*) for professors of universities and of national, archæological, and art schools, and for professors of classical, technical, and governmental or normal schools, with a document proving their identity when recognition may be necessary; (*e*) for alumni of archæological and national artistic institutes, for those of the faculty of letters and philosophy, and of the schools for engineers, with an official document showing their registration in the abovementioned schools in the year in which they ask the permit; (*f*) for foreign alumni, such documents must be visaed in the prescribed manner by foreign artists and professors; (*g*) for artisans belonging to industries related to the arts of design, the demand should be accompanied with a certificate proving their identity and coming from the director of an institute of fine arts or some other public authority.

ART. 3. The professors and students of foreign archæological and artistic institutes established in Italy may obtain the permit for free entrance through the principal of the institute.

ART. 4. Pupils of national schools and institutes of education and instruction may, accompanied by their teachers, visit gratuitously the museums, galleries, excavations, and monuments, a previous arrangement having been made between the director of the school and the director of the museum, gallery, etc., to be visited. Soldiers must be in uniform.

ART. 5. Persons desiring a general permit for free admission to all the museums, galleries, excavations, and monuments of the Kingdom shall make a request to the minister of public instruction on stamped paper of 1.20 lire (23 cents), accompanied by the documents required by articles 2 and 3, and an unmounted photograph of themselves, of dimensions not greater than 5 by 8 centimeters (1.9 by 3.1 inches).

ART. 6. Persons desiring free admission to the archæological and artistic institutes of a single city will make their request on stamped paper of 0.60 lira (12 cents) to one of the heads of said institutes, accompanying it with the documents required in articles 2 and 3, and if the permit is asked for more than a month, with the portrait according to the preceding article.

ART. 7. The examination of the certificates for guides must be effected before a commission in each city where there are archæological or artistic institutes or officers of the State, according to the measures which shall be prescribed by the minister of public instruction. The permit to guides is restricted to the institutes and places for which they shall have been recognized as fitted.

ART. 8. Tickets for free entrance, issued before the date of the present decree, shall be valid to the end of the time for which they shall have been granted.

ART. 9. The provisions contained in articles 9 and 12 of the regulation for the collection of the entrance fee into national museums, galleries, excavations, and monuments, approved by royal decree June 11, 1885, are abrogated.

THE CHINESE LANGUAGE.

While China is considered the land of promise for our manufacturers and farmers, the importance of the knowledge of the Chinese language is greatly undervalued. I submit the details of a recent interview with a linguist who has given special attention to this subject.

It is well understood that in order to enter into permanent commercial relations with a foreign country it is indispensable to know its language. When Russian industries began to develop, the Germans recognized that in order to engage in profitable trade in that country it was necessary to learn Russian, and there is now no country where the Russian language is so much taught as in Germany.

The Chinese language is ideographic. It conveys the idea and not the word for a thing, as the figure "8" represents the idea and not the word. The Chinese have invented more than 40,000 marks for their writing. In the opinion of my informant, it will require only about 3,000 marks for mercantile correspondence, and it will be easier to learn them than the words of an ordinary foreign language.

Russian is more difficult for Americans than Chinese. It takes much longer to learn the spoken language because of the variety of dialects; but anyone can learn enough of the writings to answer ordinary purposes in a few months and have his knowledge perfected by a linguist within about a year. An exact instruction in one of the Chinese languages can only be given by a Chinaman.

This method has been adopted in Germany. Besides the professor for the theory of language, there are four Chinese linguists in the Oriental Seminary of Berlin teaching the business style and the languages of Peking, Shanghai, and Canton. It is not intended to fit pupils for the diplomatic service, but for commercial work.

CHARLES NEUER, *Consular Agent.*

GERA, GERMANY, *July 12, 1902.*

EDUCATIONAL MOVEMENTS IN CHINA.

Educational movements in the province of Kwangtung are progressing favorably and satisfactorily. A new center of learning has been established in Canton—the Kwong Nga Shu Un, or Provincial College, which is hereafter to be known and styled the College of the Two Kwangs. All students who pass the entrance examination must find their own expenses, the teaching being free. They have also to answer the following questions affirmatively:

Question 1. In the event of your being admitted to this college, do you agree to give yourself wholly to your studies and not to attend any of the degree examinations in other places?

Question 2. After your entrance, a period of seven or eight years must elapse before you proceed to Pekin for the second degree; do you consider your patience and perseverance equal to that?

Question 3. Students who have studied English and mathematics previous to entrance must pass through all the classes—no distinctions can be made; do you agree to this?

Question 4. As no allowances will be made and you will have to buy all your books and find all of your expenses during the seven or eight years you are in residence, do you believe your own resources or those of your friends are equal to this demand?

The examinations are competitive, and are held continuously. That the syllabus is an ambitious one can be judged from the following list of subjects: (1) Chief (social) duties and great proprieties, (2) government (methods of), (3) history, (4) geography, (6) Chinese language, (7) mathematics (elementary), (8) physics.

(9) agriculture and mining, (10) map drawing, (11) music (poetry), (12) physical drill.

The following report has just been made to me by Professor Mou Lien, a Manchu, who is one of the faculty:

CANTON, *July 16, 1902.*

Hon. ROBERT MCWADE, *U. S. Consul.*

DEAR MR. MCWADE: I am very glad to make to your honor a report of the different branches of science learned by the scholars of the newly established university in Canton, namely: The study of Chinese, English, physics, geography, mathematics, chemistry, politics, bodily exercise, and mandarin language.

Teachers, 16; 6 teach Chinese, 4 English, 1 physics, 1 geography, 1 chemistry, 1 mathematics, 1 politics, 1 bodily exercise. Chief manager, 1; assistant manager, 1; managers of the 3d class, 4. All are Chinamen.

Scholars 160, who have no pay, but those who pass the examination held once every month will get some money as a reward. The school time begins from 1 [7?] o'clock a. m. to 12, and begins again from 1.30 to 4.30 p. m. I am one of the four English professors, and I teach the mandarin language, too.

With best compliments, I am, yours, very sincerely, MOU LIEN.

His honor Kung Nsin Chan, the prefect of Kwong Chau Fu, told me yesterday that he had purchased over 17 acres of land near the White Cloud Mountains, whereon he proposes to erect a "college for western learning," in which about 200 students can be boarded and educated. He asked me to aid him, not alone in the preparation of plans for the construction of the building, but also in drawing up a scheme of the course of studies to be pursued in the proposed institution. I agreed to do so on the condition that a number of Americans shall be included on its staff. This he agreed to.

There is also a scheme on foot looking to the establishment of a great military college, where 180 students will be taught mathematics, history, geography, botany, geology, hygiene, mandarin, German, and English. They will be divided into three classes, the lowest or first consisting of men intended for subordinate positions, the second a higher grade of official rank, and the third for those who will command armies or divisions. Two years is the limit for the first two classes, and, strange to say, one year for the highest or third class, i. e., intended generals of division. It is quite possible that this classification, as well as the time limit of studies, will be rearranged before the opening of the college. Candidates presenting themselves for the entrance examinations must be able to read the ordinary Chinese text-books with facility, and the age limit is from 17 to 23 years.

I am, sir, your obedient servant,

ROBERT M. MCWADE, *Consul.*

CANTON, CHINA, *July 16, 1902.*

NEW NATIONAL SCHOOL IN GERMANY.

On the 10th of May, 1902, some of the most prominent citizens of Baden met in conference in Karlsruhe to discuss the founding of a German national school. At the close of the session an appeal was issued to the German people, the contents of which may be summarized as follows:

The efforts to infuse into our national system of education all the necessities of the age have thus far been applied almost exclusively toward strengthening the internal needs of our race, without taking into consideration the wants of our people located in foreign countries. Other nations which have vast interests in every part of the world have long since established schools which prepare young men to take up lucrative and responsible positions in their colonies. This is especially true of England, where education may be termed one-sided in favor of the colonial service.

As time passes, two things become more and more prominent as necessary to the future of the German Empire:

I. Our ability to compete in the world's markets.

II. The preservation of the German element in foreign countries, and the fostering of mutual ties with the mother country.

Upon these two conditions may be said to rest the commercial future of the German Empire. This is especially the case when we consider that the German colonies will never be capable of receiving, to any great extent, the thousands of Germans who emigrate every year. There are to-day some 13,000,000 German-speaking people in foreign countries, who for the most part have renounced allegiance to the land of their birth and enrolled themselves under other flags. To prevent a continuance of this state of affairs will be one of the primary duties of the national school. As a means to accomplish this, we announce the following programme for the young men placed in this school:

(1) A thorough course in economics.

(2) The infusion of German character and civilization, so that the same will remain uninfluenced by the habits and customs existing in other countries in which these young men may locate.

(3) A practical and theoretical course in agriculture, horticulture, and different trades.

(4) To establish boys between the ages of 9 and 15 years in good families for the purpose of better instruction and discipline, where they may at the same time attend the public schools.

(5) Three years' preparation for the national school, between the ages of 15 and 18, in commercial, technical, and agricultural subjects.

From the latest newspaper reports, this school has been established in Wertheim on the Main. It will be formally opened this fall.

ERNEST L. HARRIS, *Consular Agent.*

EIBENSTOCK, GERMANY, *July 19, 1902.*

INDUSTRIAL SCHOOL AT TOURCOING, FRANCE.

Under date of September 24, 1902, Consul W. P. Atwell, of Roubaix, France, writes as follows:

The industrial school at Tourcoing is under the patronage of the chamber of commerce. Its object is to give a degree of technical instruction to the sons of manufacturers and merchants that will enable them to aid in the management of the business and in time to assume the entire direction, and also to give theoretical and practical instruction to workmen which will fit them to be foremen, head mechanics, overseers of spinning and weaving mills, accountants, and correspondents. The course of instruction, which is given to both day and evening classes includes:

Theory and practical work of spinning; weaving and pattern drawing (sketching and putting on cards); study of threads (distinctive character of textiles) and practical work; applied mechanics (technical working of metals, machinery); industrial physics; electro-technics; geometrical drawing applied to machines; commercial and bank accounts; commercial and industrial law; commerce and merchandise; stenography and typewriting. The studies in each branch extend over one year, except in weaving and pattern drawing; in these classes a special course in decorative composition and creation of fabrics is given, occupying a second year. This course includes drawing from living plants, elements of water coloring, study of decoration in every century, character of styles, creation of designs applied to tissues, with preparation for examination as art workmen. The annual cost of the day course for French students is 300 francs ($57.90) for the spinning and commercial course, and 400 francs ($77.20) for weaving. Foreigners pay double, and a reduction of 100 francs ($19.30) is made for pupils taking a double course, and 200 francs ($38.60) for those taking three courses. The night classes are organized for pupils living or working in one of the Tourcoing districts. A registration tax of 2 francs (39 cents) is required for the first year, 5 francs (97 cents) for the second, with an additional payment of 3 francs (58 cents) for samples and sundries the first year in the theory class, 4 francs (77 cents) the second year, and 5 francs (97 cents) for the third. The registration tax for the course in electricity is 3 francs (58 cents) the first year and 5 francs (97

cents) the second. The course in conducting steam heaters is 2 francs (39 cents) registration tax and 1 franc (19.3 cents) for the course in machine drawing. The registration tax is required of pupils in the commerce classes independent of any other course they may take, which is 3 francs (58 cents) for stenography. Pupils not residing within the limits of Tourcoing pay a tax of 10 francs ($1.93) per month, in addition to the cost of samples and sundries, for the privilege of attending the night classes. Application for admission may be made to the director of the school, 66 rue de Casino, Tourcoing. Classes begin October 1.

In addition to the Tourcoing school, there are two superior technical schools in Roubaix and one in Lille.

CHANGES IN REGULATION REGARDING THE ADMISSION OF STUDENTS TO TECHNICAL SCHOOLS.

The Official Messenger publishes a detailed circular, which has been sent to the curators of the educational districts, and contains a number of new regulations regarding the admission of students to technical schools. Among the changes effected by the new regulations is the abolition of reports on the personal character and habits of the matriculated students which the heads of the intermediate schools have hitherto been obliged to draw up and forward to the technical schools to which the students proceeded. Instead of this the entries in the "behavior list" of the last three years are to be sent in along with applications for admission to the technical schools.

W. R. Holloway, *Consul-General.*

St. Petersburg, Russia, *September 20, 1902.*

THE MEDICAL INSTITUTE FOR WOMEN AT ST. PETERSBURG.

R. T. Greener, commercial agent, Vladivostock, Siberia, writes under date of September 20, 1902:

"The new medical college for women opened lately with 300 new students. Nearly all of them had finished the grammar-grade schools with the gold medal for excellence in the course. A few were received who had only silver medals, and a still smaller number who had completed the course, but if compelled to wait four or five years would have been debarred by age from entering upon the study of medicine.

"The whole number of students now in attendance is 1,430. The curriculum is very thorough. The women are apt students."

GLAUCHAU WEAVING SCHOOL.

Having had a number of inquiries regarding the Glauchau technical school for weaving and designing of textiles, I wish to report the following:

There were formerly two technical schools here, both founded in 1858. The purposes were the same, although one was somewhat exclusive, giving instruction to the sons of manufacturers and merchants only. About 1868 both applied to the Government for financial assistance, which was granted on condition that they unite. This was soon brought about, and the Government appropriated the sum of 5,000 marks ($1,190), promising to give this amount each year if the city of Glauchau would appropriate 2,000 marks ($476), which was agreed to, and since that time the school has received 7,000 marks ($1,666) yearly. This amount, together with the small sum received for tuition, has enabled them to build a large and commodious building and maintain a corps of teachers. Instruction is given in both day and evening classes in the theory and practical work of weaving and pattern drawing,

the creation of designs as applied to textiles, the making and calculating of Jacquard cards, drawing and coloring from nature. The course takes usually about three years and costs natives of Saxony 40 pfennigs (9½ cents) a week.

It has been erroneously stated that this school and a like institution at Meerane are closed to others than natives of Saxony. Foreigners from any country will be admitted upon the payment of a fee of 100 marks ($23.80) a year.

Owing to the industrial depression existing throughout this entire district for the last five years, the attendance has steadily fallen off, until now there are only 48 pupils, and the city authorities are considering the advisability of closing the school temporarily.

When it is remembered that the population of Glauchau is to-day about 5,000 less than it was six years ago, this situation can be readily understood.

E. A. CREEVEY, *Consul.*

GLAUCHAU, GERMANY, *November 10, 1902.*

PRIVATE SCHOOLS IN RUSSIA.

According to statistics of the Department of Finance during the last five years, 42 commercial schools, 30 trading schools, 26 trading classes, and 21 courses on commercial knowledge were established and operated by private means. The cost of maintaining these schools and courses was 2,500,000 rubles, or $1,250,000, and 20,264 pupils are educated in them.

SAMUEL SMITH, *Consul.*

MOSCOW, RUSSIA, *November 17, 1902.*

THE COMMERCIAL SCHOOL AT TIFLIS.

In compliance with a request from a former university president in the United States for information in regard to the commercial school at Tiflis, Russian trans-Caucasia, I put myself into communication with the director of the school, and with the German consul at Tiflis, who very kindly sent me the following letters. The German consul said:

The commercial school at Tiflis was founded by the merchants of this city and formally opened on the 17th of September, 1900. The school building cost $107,940. The expenses of the institution are paid by tuition and by an annual subsidy of $5,140 granted by the merchants of Tiflis. When absolutely necessary, the State also gives some support. The State pays the teachers' pensions, which are earned in Caucasia after twenty years' active service. Throughout the rest of the Russian Empire, such pensions are granted after twenty-five years' teaching.

The director of the Tiflis commercial school wrote:

Our commercial school stands immediately under the administration of the Russian Minister of Finance. There are three elementary classes and five general classes, as well as two classes for special study. Thus far, only the three elementary and three of the five general classes have been organized. A new class will be organized each year until all are complete. The first graduating class will go out in 1907. There are 694 students at present, composed of the following nationalities:

Nationality.	Number.	Nationality.	Number.
Russians	48	Greeks	5
Georgians	89	Jews	24
Armenians	480	Tartars	23
Poles	2	Persians	5
Slovaks	1	Assyrians	1
Germans	10	Ossedes	6

CONDITION OF ADMISSION.

Children between the ages of 7 and 9 years are admitted without examination. Children coming from the public schools are usually admitted to the first division of the general class.

Curriculum.

Russian.	Russian commercial correspondence.
German.	German commercial correspondence.
French.	French commercial correspondence.
Commercial arithmetic.	Algebra.
Geometry.	Trigonometry.
Geography.	Commercial geography.
History of commerce.	History.
Natural sciences.	Physics.
Chemistry.	Physiology.
Materials of commerce.	Bookkeeping.
Political economy.	Commercial law.
Religion.	Elementary branches.

In addition to this course some of the languages of Caucasia are taught.

One should not lose sight of the fact that the 10,000,000 inhabitants of Caucasia are made up of the remnants of many ancient nomadic tribes. According to Russian statistics, only 2,500,000 are Russians, 1,000,000 are Armenians, 1,500,000 Tartars and Georgians, while the rest are principally Mohammedan tribes. It is claimed that there are 30 different languages and dialects spoken in Caucasia. Tiflis is an Asiatic city. It is connected by overland caravan routes with Persia, Turkestan, Afghanistan, India, and even China. Camel trains from Damascus, Bagdad, and Arabia reach the city from the south. It is the object of the Tiflis commercial school to draw its recruits from all these adjoining countries; to infuse into them Russian customs and business methods, at the same time giving them instruction in their own language, religion, and traditions. Such methods will have a powerful effect upon the destinies of southern Asia. It is the hope of those personally interested in the Tiflis commercial school that by the time it is completely established, the number of pupils will have increased to 1,200.

From a German gentleman of Mittweida, Saxony, who visited Tiflis in August, 1902, and from other sources, I have learned the following additional facts:

The teachers are regarded as being in the service of the State, enjoy certain rights as State officers, wear uniforms, and are appointed by the Minister of Finance. The school is divided into two sections, namely, a preparatory school and an advanced commercial school. In all Russian commercial schools the preparatory department is divided into four classes and the advanced school into seven classes. In Tiflis the preparatory school is complete, but in the advanced school only two of the seven classes have thus far been established. This is owing to the fact that the school was first opened in 1900. The remaining five classes in the advanced school will therefore be organized as soon as the demands for the same are urgent. One year is devoted to every class, making in all four years for the preparatory and seven years for the advanced courses.

Apprentices and others who wish to attend Russian commercial schools have the option of preparing themselves in whatever school they choose. For example, pupils may be admitted to the advanced section of the Tiflis commercial school without having attended the preparatory department of this or any other commercial school. Such preparation may be obtained in any of the public schools.

There are 48 teachers employed at present in the Tiflis commercial school. A large number of these, however, are also employed in other schools of the city. A definite salary is not paid these teachers; only the director and inspector receive fixed salaries. The former receives 4,200 rubles ($2,158.80) and the latter 3,200 rubles ($1,644.80) per annum. Each class teacher receives on an average 720 rubles ($370.08) and has the privilege of giving as many extra hours as the time at his disposal will permit. In the preparatory department each of these teachers receives 50 rubles ($25.70) for every extra course of two to three hours a week during a semester. Every class teacher is guaranteed a sufficient number of extra hours in

order to make good any deficiency in salary. It might be stated here that the school year is divided into two half years, or semesters. The average income of each teacher is thereby increased so that it amounts to about 2,000 rubles ($1,028) annually.

There is one subject taught in the above-mentioned curriculum which is especially worthy of note, namely, materials of commerce. In the Tiflis school this subject is divided into four parts and taught with special reference to the commercial conditions existing in Caucasia. These divisions are as follows: Agriculture, stock raising, mineralogy, and manufacture.

Transcaucasia grows almost every known grain in the world. The forests of the Caucasian Mountain Range produce saffron, madder, oak, walnut, and boxwood lumber, while apples, pears, and grapes grow wild in these forests to such an extent that they are exported in large quantities. The wine of Caucasia is also exported, and the cotton of the country is second only to that of Egypt. Stock raising is of more importance to the welfare of the inhabitants than agriculture. The animal products of the country are horses, cattle, sheep, camels, honey, and silk. The fishing industry is well developed and furnishes a livelihood to many thousand people. Caucasia is rich in silver, iron, copper, coal, salt, and especially manganese. The petroleum or naphtha wells of Baku produce 8,000,000 tons, or fully 50 per cent of the world's annual supply. The industries of Caucasia are in their infancy. The articles of manufacture thus far are firearms, woven goods, and carpets.

I have mentioned the resources of Caucasia simply to show what subjects are especially taught in connection with materials of commerce in the commercial school. Samples of plants and minerals have been collected which are used by the teachers as illustrations. No student leaves the school without acquiring a thorough knowledge of all the products of Caucasia and adjoining countries, a knowledge which will inevitably be of great service to him in after years, either as a merchant or manufacturer.

Those who graduate from the Tiflis commercial school may be admitted to any of the technical universities without further examination and (with the exception of the so-called "classical four-faculty universities") to any other institution of learning in the Empire. The student is also fitted to obtain Government employment and has the further advantage of having to serve only one year in the army. The student who is fortunate enough to win the gold-medal prize—only one being granted each semester—secures pecuniary benefits and receives a special title which raises him for life to a rank about halfway between that of citizen and noble. One of the advantages thus acquired is exemption from taxation.

In Caucasia the pensions of the teachers are the same as those all over the Russian Empire. In Tiflis the pensions are better on account of the higher cost of living. These pensions are regulated in the following manner: Each teacher, as well as the director and inspector, pays into the treasury every year 2 per cent of his salary. After twenty years of service, he receives a pension of 900 rubles ($462.60) annually. The director receives a pension of 1,600 rubles ($822.40) and the inspector 1,200 rubles ($616.80) annually. The Government makes a distinction in regard to pensions between those who have especially trained themselves for commercial school work and those who have not. Those teachers who are not graduates of high-class schools receive a pension of only 600 rubles ($308.40) annually.

The school tax in the first class of the preparatory department is 80 rubles ($41.12) for each student annually. In the other three classes of the preparatory department the tuition is 100 rubles ($51.40). In all the classes of the advanced department the tuition is 120 rubles ($61.68) annually.

Commercial schools in Russia are founded by the State wherever they are thought to be necessary. The initiative is always taken by commercial organizations—that is, chambers of commerce and similar bodies—the members of which have previously appointed a committee which has thoroughly examined the question. After

definite information has been obtained in regard to the demand for a school, the number of prospective students, financial contributions, etc., the Government is petitioned to grant a license and to make good any annual deficit which may occur. The Government, however, never goes beyond granting 25 per cent of the actual expenses of any commercial school. The funds for maintaining these schools must come, in the first instance, from the merchants and commercial bodies in the city where the school is located. Russian commercial schools are State institutions and are under the control of the minister of finance. The Empire is divided into districts, each of which has an inspector who works hand in hand with the director of each school. There are 43 commercial schools in the Russian Empire under the control of the State, and 20 private schools, similarly organized, with State supervision.

The commercial school at Tiflis is a very good example of the schools in the Russian Empire. Russian merchants and manufacturers are alive to the fact that these institutions will be of incalculable value in the development of the enormous material resources of their country. The Russian chambers of commerce are following the example of Germany, and are establishing these useful institutions wherever the needs and resources of a community will admit of it. The signs of the times are distinctly in favor of commercial education, and the extension of these schools throughout Russia will give many object lessons to other nations which are interested in this kind of education.

ERNEST L. HARRIS, *Commercial Agent.*

EIBENSTOCK, GERMANY, *January 9, 1903.*

GERMAN PROFESSORSHIP OF RAILROADS.

Consul-General Richard Guenther reports from Frankfort, January 22, 1903:

"A regular professorship of railroading is to be created at the Technological University of Berlin. Since 1901 a course of six lectures on railroading has been delivered at this school; but as this limited course was not sufficient for the important branch (for which a programme of instruction had been agreed upon in conjunction with the management of the State railroads), it is now proposed to establish a full professorship. Much more attention has recently been paid in the school to the construction of locomotives and to signaling."

ALCOHOLISM IN FRANCE.

Alcoholism in its more deplorable form is not common in France, although without doubt the disease in its milder stages is more prevalent than it was years ago. Excesses in this direction are popularly supposed to be attributable to the failure of the wine crops during the years before and after 1890, with the result that the cheap wine of the people became temporarily expensive, and led to the diffusion of strong alcoholic beverages, commonly denominated "apéritifs." Within more recent years the French wine crop has increased enormously, and the ordinary red wine has become cheaper than ever before. The use of these light wines is recommended by persons interested in the general fight against alcoholism, and it is easily observable, without recourse to statistics, that intoxication is relatively uncommon in the regions where the red wine is produced, and consequently sold upon the easiest terms.

As illustrating what is being done in France to counteract alcoholism, I supply

herewith a translation of a placard which is widely distributed by the public powers and posted conspicuously in the public hospitals:

GOOD ADVICE.

The majority of maladies treated in the hospitals are caused, or aggravated, by the abuse, and even by the simple use, of liquids containing alcohol; all of these liquids, however denominated, are dangerous. We direct especial attention to the so-called "apéritifs," such as absinthe and bitters.

The brandies and liquors are also very destructive, and likewise wine in large quantities. More than one liter per day of wine represents a dangerous quantity. Taken before eating, these liquids depress the appetite, whatever advertisers may say to the contrary; they burn the stomach, the liver, and the arteries. After eating, alcohol in whatever form served troubles the digestion, and at the end of some time it is impossible to do without drinking, and from this moment the victim is alcoholic.

It is possible to become alcoholic in drinking regularly the liquids indicated above, and that also without entering into a state of intoxication.

The working classes labor under the greatest error in believing that alcohol gives strength. Those who are addicted to its use realize merely an artificial excitement, which lasts but a short time, and leaves them soon more fatigued than before. They then desire to cure this fatigue in again consuming alcohol, and they thus become alcoholic.

Alcoholics become insane easily, and are liable to very painful forms of paralysis. We often treat workingmen who have been very robust and who have become rapidly consumptive because they have regularly taken before each meal their "apéritifs."

The children of alcoholic parents are almost always badly formed, weak-minded, insane, scrofulous, or epileptic. They die often in convulsions.

Criminals are in large part alcoholics or the children of alcoholics.

THE PHYSICIANS AND SURGEONS OF THE HOSPITALS.

No doubt some of the remedies offered for sale in the United States for alcoholism could be sold similarly in France by adopting vigorous methods, but the field in this country is certainly limited as contrasted with that offered in the more northern regions of Europe. France, Italy, Spain, and Portugal are least of all European countries afflicted with alcoholism. There are comparatively few institutions for the special treatment of this disease in France, and I have only been able to secure the following addresses: Maison de Santé d'Epinay, 6–8 Avenue de Paris, Epinay sur Seine; Maison de Santé Esquirol, 23 Rue de la Mairie, Ivry sur Seine; Établissement Hydrothérapique d'Auteuil, Rue Boileau 10–16, Paris; Maison de Santé de Picpus, 8–10 Rue des Picpus, Paris.

ROBERT P. SKINNER, *Consul-General.*

MARSEILLE, FRANCE, *March 19, 1903.*

AMERICAN COLLEGE IN STRASSBURG, GERMANY.

Consul J. I. Brittain writes from Strassburg, February 18, 1903:

The average American is beginning to learn that if we are to continue our advancement along commercial lines we must give our boys a better knowledge of the modern languages. An American college has been established in Strassburg (the educational and commercial center of this consular district), the object of which, as set forth in a circular, is "to fit American boys for American universities in the actual European environments of spoken German and French." The number of pupils admitted to the school is limited to 20. "Classes" and "forms" do not exist, nor under any circumstances do more than 4 boys hear the same recitation at the same time. The modern languages are taught by native teachers, resident at the school. Science and the English subjects are in charge of experienced American instructors. The school occupies a building of 40 rooms, situated in the best part of the city, and has modern sanitary arrangements. A large playground and a boathouse, well supplied with training and racing boats, are near the building, thus affording ample facilities for athletic exercise. The principal of the school is David K. Goss, formerly superintendent of schools in Indianapolis.

PROPOSED UNIVERSITY FOR HAMBURG.

A general meeting of the most prominent citizens of Hamburg took place recently to discuss ways and means of establishing a university in that city. This will make the twenty-second or twenty-third university in the German Empire. A gentleman in Hamburg, to whom I wrote for information on the subject, says that the chief argument in favor of the scheme is that Hamburg has already such a well-developed system of lectures that a comparatively small enlargement of the present course would bring it up to the standard of a university.

The lectures referred to have been given under the auspices of the "Oberschulbehörde," or higher school authorities, of Hamburg, and embrace the following branches of learning: Theology, law, medicine, philosophy, geography, history, literature, music, art, architecture, mathematics, astronomy, physics, chemistry, mineralogy, zoology, botany, and pharmacy.

The lecturers thus far have been chosen from the most prominent citizens of Hamburg who have distinguished themselves in their respective professions. Many professors from different German universities have also been engaged to give courses on special subjects. It has always been the practice to give the lecture courses gratuitously. Anyone in America desiring further information on the subject should address Die Vorlesungs-Commission der Oberschulbehörde, Hamburg, Germany. •

ERNEST L. HARRIS, *Commercial Agent.*

EIBENSTOCK, GERMANY, *March 7, 1903.*

PRIMARY COMMERCIAL EDUCATION IN GERMANY.

In a former report [a] to the Department of State, I described in detail what German chambers of commerce are doing for commercial education in this Empire. In order to give a comprehensive view of the subject I divided commercial education in that report into five distinct grades, as follows:

I.—Primary commercial schools (Kaufmännische Fortbildungsschulen)
II.—Commercial schools (Handelsschulen).
III.—Advanced commercial schools (Höhere Handelsschulen).
IV.—Classified commercial courses (Handelsfachklassen).
V.—Commercial universities (Leipzig and Cologne).

This report brought a great many letters of inquiry to this office. I have been requested by a number of persons in America, who are interested in this subject, to give a detailed report on the first of the above-named divisions, or primary commercial education as it exists in Germany to-day.

The subject is a vast one. In 1895 the chamber of commerce in Brunswick attempted, through a series of circular letters, to get all the information possible about these schools or classes in Germany. The attempt proved a failure; in many cases the letters of inquiry remained unanswered. Finally, a few persons interested in the subject consented to study up the matter in various localities. In 1896 the Brunswick Chamber of Commerce published the results [b] of its investigations. I have used this publication in connection with my own inquiries on the subject.

PRUSSIA.

(a) THE RHINE PROVINCE.

Reasons for establishing primary commercial schools.—It was after the creation of the German Empire in 1871 that the need of elementary commercial education took

[a] See article 1 of this chapter.

[b] Kaufmännisches Fortbildungs-Schulwesen, von Dr. Stegemann. Verlag Albert Limbach, Brunswick.

firm foothold in the Rhine province. The war with France gave an irresistible impulse to commerce and industry. Competition for markets became sharper year after year, and the increase of population soon made it apparent to merchants and manufacturers that the training of apprentices was an indispensable necessity in the search for markets. In Germany the conviction is everywhere manifest that the manufacturers of the Empire would play a losing game unless the supporting factor of commercial education be maintained at the highest pitch of skill and perfection.

The following table will show the number of primary commercial schools at present in the Rhine province:

Location.	Date of founding.	Number of pupils.	Number of pupils per 1,000 inhabitants.
Rheydt	1874	25	0.83
Wetzlar	1874	40	4.91
Duisburg	1880	28	.4
Aix-la-Chapelle	1883	196	1.72
Cologne	1885	230	.....
Elberfeld	1886	130	.93
Coblenz	1887	102	2.95
Essen	1887	122	1.28
Crefeld	1887	173	1.02
Düsseldorf	1888	250	2.33
Barmen	1889	132	1.06
Mülheim	1889	40	1.08
Trier	1889	65	1.8
Remscheid	1889	78	1.68
Gummersbach	1892	31	2.82
Bonn	1893	156	4.19
Saarbrücken	1893	51	1.55
Geldern	.....	8	.8
Total	.....	2,114	.....

It should be stated that the school in Gummersbach was founded by the Prussian State. The schools in Trier, Mülheim, Düsseldorf, Crefeld, Bonn, and Barmen were founded by the chambers of commerce in those cities. Those in Aix-la-Chapelle, Cologne, Elberfeld, Saarbrücken, Wetzlar, and Remscheid were founded by the merchant unions. In Coblenz, Rheydt, Geldern, and Duisburg the schools were established by the merchant unions and private individuals. The school at Rheydt is exclusively for girls, while those in Bonn, Coblenz, and Cologne are coeducational.

Compulsory attendance.—There is a general law in the Rhine province which compels all apprentices under 18 years of age to attend either the primary commercial schools or other schools of similar character. It would seem that the application of this law is left chiefly to local option, as only Trier and Wetzlar have thus far made use of it. The other schools accomplish as good results without resorting to this compulsory law.

Conditions of admission.—The conditions of admission are, for the most part, different in each school. In many the sons of the municipal authorities, lawyers, etc., are admitted on an equal footing. The majority, however, admit only the sons of tradesmen.

Curriculum.[a]—French, English, Spanish, Italian, bookkeeping, arithmetic, correspondence, stenography, and drawing are taught for the most part in the 18 primary schools of the Rhine province.

Inspection.—The board of directors of these schools consists usually of a committee chosen from the municipal authorities of the city in which such school is located. This board selects the curriculum, attends examinations, solicits funds, chooses

[a] For information in regard to text-books used in every branch taught, I would advise those interested to write to Bernhard Liebisch, Kurminz street, 6, Leipzig.

teachers, and makes all necessary recommendations to the minister of education. The mayor of the city is usually chairman of the board.

Vacations.—In most German primary commercial schools the vacations come at the same time as those in other public schools of the Empire.

Financial aid.—The following tables will show to what extent these schools or classes in the Rhine province are supported by the State, cities, and chambers of commerce. The money is given only for the purpose of making good yearly deficits.

The Kingdom of Prussia gives support to schools in the following cities:

	Amount.
Aix-la-Chapelle	$200.00
Crefeld	452.20
Cologne	428.40
Trier	100.00

The following schools receive support from the cities in which they are located:

	Amount.
Barmen	$250
Bonn	240
Coblenz	75
Crefeld	75
Gummersbach	300
Saarbrücken	75

(*b*) BRANDENBURG.

In the province of Brandenburg there are at present primary commercial schools in the following cities: Berlin, Brandenburg, Cottbus, Potsdam, Spremberg, Cüstrin, Forst, Frankfort-on-the-Oder, Rathenow, Guben, Havelberg, Landsberg, and Sorau.

There are four such schools in Berlin and two in Frankfort-on-the-Oder, while the other cities have but one each. There is also a primary commercial school for girls in Berlin.

(*c*) PROVINCE OF SAXONY.

There are 40 cities which have a population of more than 5,000; only 14 have primary commercial schools. Twenty-four of these 40 cities have more than 10,000 inhabitants, and 12 of these have such schools. It will be seen, therefore, that the number of schools is insignificant compared with the material wealth and development of this part of Germany.

These schools are in the following cities: Halle, Erfurt, Marseburg, Weissenfels, Eisleben, Magdeburg, Burg, Zeitz, Aschersleben, Neuhaldensleben, Wernigrode, Gardelegen, and Mühlhausen.

Magdeburg has two primary commercial schools, one founded in 1886 and the other in 1888. In Eisleben and Zeitz school attendance is compulsory. This applies to all apprentices under 18 years of age, with the exception of those who have passed the prescribed examination which admits them to one year's service in the army. Girls are admitted to the school at Eisleben, although attendance is not compulsory.

(*d*) HANOVER.

The primary commercial schools of Hanover are among the best organized schools of this class in Germany. They are: Hanover, Peine, Emden, Goslar, Göttingen, Lüneburg, Celle, Leer, Osnabrück, Harburg, and Hildesheim.

(*e*) SCHLESWIG-HOLSTEIN.

In Schleswig-Holstein, commercial primary schools have as yet been but little developed. This is perhaps due to the fact that these schools are, for the most part, private enterprises. No compulsory laws being in force, the attendance is poor. There are only four such schools in Schleswig-Holstein, namely, Kiel, Altona, Flensburg, and Schleswig.

(*f*) WESTPHALIA.

Westphalia was the last of the Prussian provinces to introduce primary commercial classes. With the exception of the school at Iserlohn, the ten schools in Westphalia were all established between the years 1888 and 1895. These schools are the following:

Located in—	Founded by—
Arnsberg	Chamber of commerce.
Bielefeld	City.
Bochum	Merchant union.
Dortmund	Chamber of commerce and city.
Gelsenkirchen	Merchant union.
Hagen	Do.
Herford	Do.
Iserlohn	Do.
Minden	Do.
Witten	Do.

The above schools receive assistance each year over and above tuition collected as follows:

School.	From State.	From city.	From chamber of commerce, etc.
Bochum	$357	.....	$25
Hagen	250	.....	175
Iserlohn	125	$175	.....
Herford	75	75	75
Minden	75	50	.....
Dortmund	.....	250	125
Witten	.....	(a)	25
Arnsberg	.....	(a)	(a)
Bielefeld	(a)	(a)	(a)
Gelsenkirchen	(a)	(a)	(a)

a These schools receive assistance from private individuals, it having been impossible to learn the amount.

The building, light, and heat are usually furnished by the municipal authorities of each city. It costs each student on an average $5 to $7 annually for each subject taught. Compulsory attendance is in force only at Bielefeld and Herford.

(*g*) SILESIA.

There are about twenty-five primary commercial schools in Silesia.[a] On the whole these schools do not play an important part in the educational system. The curriculum, however, in most cases is extensive, even more so than in other provinces of Prussia, where education of this nature is further developed. The subjects taught in the Silesian primary commercial classes are: German, English, French, bookkeeping, commercial law, transportation, geography, materials of commerce, history, arithmetic, correspondence, stenography, and political economy.

The schools are supported chiefly from tuition fees, but many commercial organizations give assistance when necessary. It is claimed by those who are posted on the subject that the schools suffer from a want of preparation on the part of the pupils. Attendance is not compulsory.

(*h*) NASSAU.

The primary commercial schools in the province of Nassau were founded chiefly by the merchant unions. This was the case in Frankfort on the Main, Hanau, Eschwege, Wiesbaden, and Marburg. In addition to these schools, one was founded in Hersfeld in 1893, through the instrumentality of a bookkeeper and a teacher in that city.

[a] I have been unable to secure a list of the cities in which these schools are located.

(*i*) EAST AND WEST PRUSSIA.

The primary commercial schools of these provinces are located in Konigsberg, Danzig, Elbing, and Thorn. In Konigsberg school attendance is not compulsory. The pupils number about fifty. The board of directors is made up entirely of merchants and manufacturers, with the director of the school as chairman. The school funds are raised through tuition, voluntary contributions, etc. The pupils are recruited entirely from apprentices in the city. Instruction is given only from 7 to 9 o'clock on Monday and Friday evenings.

The school in Danzig was founded about forty years ago by the merchants of the city and receives its funds chiefly through tuition and voluntary contributions. The hours of instruction are the same as those in Konigsberg. The classes are attended by about fifty pupils.

The Elbing primary commercial school was founded in 1869. It is attended by about 50 pupils, although attendance is not compulsory. There are two classes, the subjects being the same as those usually taught in such schools.

The school in Thorn consists of four classes with two teachers.

(*k*) POMERANIA.

The development of primary commercial schools in Pomerania has been greatly retarded because no compulsory-attendance laws exist. In addition to this, the schools are all private enterprises, without any State supervision. The schools are located in Stralsund, Stolpe, Colberg, and Lauenburg. The classes are not well attended. On the whole, the merchants of Pomerania do not seem to interest themselves much in these schools.

(*l*) POSEN.

There are only three primary commercial schools in the whole province of Posen, and these are all located in the city of Posen. They were founded by the merchant organizations of the city, the State having no supervisory control. The class hours are from 8 to 10 every evening in the week, and the schools were attended during the past year by about 150 apprentices. There is no compulsory attendance, and the examinations are held very irregularly.

BAVARIA.

The primary commercial schools in Bavaria to-day are the following: Ansbach, Bayreuth, Gunzenhausen, Ludwigshafen, Nuremberg, Würzburg, Augsburg, Fürth, Kempten, Amberg, Ratisbon, Zweibrücken, Bamberg, Landshut, Munich, and Schweinfurt.

These schools are attended by 3,130 pupils. In comparison with the number of inhabitants, however, the attendance is not large.

SAXONY.

There are more than 50 commercial schools in the Kingdom of Saxony. They are so efficient and widespread that primary commercial classes, for the most part, have been found to be unnecessary. In 1896 there were only three primary commercial schools in Saxony, namely, Leipzig, Oelsnitz, and Waldheim, and a very limited number has since then been established in some of the smaller towns.

WURTTEMBERG.

As long ago as 1825 a movement was started in Wurttemberg to further primary commercial education. Instruction was given in many places on Sunday. In 1854 the plan of giving instruction of evenings instead of on Sunday was introduced. The primary commercial schools in Wurttemberg to-day are the following: Stuttgart, Ulm, Gmünd, Heilbronn, Esslingen, Ravensburg, Reutlingen, Göppingen, and Biberach.

The school in Stuttgart is independent of any other institution. All the others are connected either with the public schools or with some other institution of learning. Compulsory attendance does not exist, and the apprentices are permitted to attend only before or after business hours. In Stuttgart the hours are from 7 to 9 in the morning in winter and from 6 to 8 in summer; evenings, from 8 to 10 o'clock.

BADEN.

In 1895 there were 13 primary commercial schools with 1,000 pupils in Baden. I have been unable to get a list of these schools. Presumably, however, they are located in Karlsruhe, Heidelburg, Weinheim, Bruchsal, Mannheim, Baden-Baden, Freiburg, Rastatt, Offenburg, etc. Undoubtedly, the number has been increased since that date.

HESSE.

The primary commercial schools of Hesse were established under very favorable conditions. The law compels every young apprentice, after leaving the public school, to attend a primary commercial school until his seventeenth year, provided it is his intention to become a merchant or manufacturer. There are at present six such schools in Hesse, located in the six cities which possess chambers of commerce. In other words, these schools are situated only in those cities that have flourishing industries, in which a large number of apprentices are being trained. These schools were founded by the chambers of commerce, and are in Bingen, Darmstadt, Giessen, Mainz, Offenbach, and Worms.

MECKLENBURG.

In 1891 the merchants of Güstrow held a meeting for the purpose of discussing ways and means to give their apprentices, especially in retail establishments, a better training in commercial subjects. A primary commercial school was finally established, and other cities of Mecklenburg soon followed suit. These schools are Güstrow, Wismar, Neubrandenburg, Plau, Rostock, Bützow, Malchin, Neukloster, Schwerin, Waren, and Hagenow.

WEIMAR-EISENACH.

In Weimar-Eisenach there are five primary commercial schools, located in Apolda, Weimar, Jena, Ruhla, and Eisenach.

With the exception of the school in Ruhla, they are all private enterprises. Attendance, therefore, is not compulsory.

OLDENBURG.

Oldenburg has but one institution which may be called a primary commercial school. This school is located in Varel, and has but 14 pupils.

BRUNSWICK.

There are 10 primary commercial schools in Brunswick, all of which were founded by merchants and manufacturers interested in giving their apprentices the rudiments of a commercial education. They are located in Brunswick, Königslutter, Schöningen, Schöppenstedt, Blankenburg, Wolfenbüttel, Gandersheim, Holzminden, Helmstedt, and Seesen.

The chamber of commerce in Brunswick was particularly active in the work of organizing these schools.

MEININGEN.

The primary commercial schools of Meiningen are in Meiningen, Poessneck, Sonneberg, Hildburghausen, Saalfeld, and Salzungen. The tuition of the school in Meiningen costs about $25 a year. The city pays the expense of rent of building,

heat, and light. Teachers receive their pay from the tuition collected, as far as it goes. In Saalfeld each pupil must contribute 75 cents, upon his admission, for the benefit of the teachers. A citizen of Saalfeld gives the interest on $250 for the school library, which is a growing one. When the school was founded the merchants' union of Saalfeld gave $80 a year to its support, but as the attendance now is sufficient to meet expenses this stipend has been dropped.

ALTENBURG.

As far as I have been able to learn, there is only one primary commercial school in this little State, and that is in the city of Altenburg. It was founded in 1865 by the merchant organizations of the city. The yearly attendance averages 75 pupils. Expenses are defrayed from tuition, but deficits are made good by merchants and others who are interested in the school. One especially interesting feature of this school is the discipline which governs the apprentices. Some of the laws read thus:

It is expected that every pupil will behave himself properly while in school. The wishes of the director and teachers amount to a command and must be promptly obeyed.

Pupils are not expected to reach the schoolroom earlier than a quarter of an hour before class exercises begin. They must be provided with books and writing material, and must take their seats quietly. Tardiness, unless a good excuse is given, will be punished by extra work. When the teacher enters and leaves the schoolroom, the pupils should rise in token of respect.

Whispering is strictly forbidden.

Pupils must be orderly during the recesses. All noise, yelling and calling, the slamming of doors, and running through the rooms and halls, each and all, are decidedly against the rules. If the school property should be damaged and the offender can not be detected, the whole class will be held responsible.

If a pupil is prevented by illness from attending school, it is the duty of the parents or principal to send in a written excuse to the director some time during the day.

It is expected that every apprentice will carefully observe the time set apart for study at home.

Apprentices are absolutely forbidden to attend dances or to take dancing lessons.

The punishments usually consist of extra work, report of misconduct to principal, public reprimand, and finally expulsion.

COBURG-GOTHA.

The primary commercial schools of this principality are located in Coburg and Gotha. They are thriving institutions and enjoy the protection of the merchant organizations.

ANHALT.

The primary commercial schools of Anhalt are located in Dessau, Cöthen, and Bernsburg.

SCHWARZBURG-SONDERSHAUSEN.

The primary commercial school in Arnstadt was founded in 1882 by the merchant union of the city. About 30 apprentices attend it. The school is a private enterprise without State supervision. Instruction is given by a teacher in the public school and by a merchant in the city. The hours of instruction are, on Mondays, from 7 to 9 o'clock in the evenings; Wednesdays, from 1 to 2 o'clock midday and from 7 to 8 in the evenings; Fridays, from 7 to 9 in the evening.

ALSACE-LORRAINE.

When Alsace-Lorraine belonged to France no commercial schools of any character existed. In 1875, Professor Bartholdy[a] founded a primary commercial school in

[a] This veteran commercial educator has done much toward furthering the founding of commercial schools in Alsace. In 1891, the writer had the pleasure of inspecting his school in Strassburg.

Strassburg. In the beginning, instruction was only given in the evenings, and, as attendance was not compulsory, the success of the institution was for a long time in doubt. Considerable stress was laid on the French language, and this soon led many of the soldiers of the Strassburg garrison, who were on the lookout for positions in the newly acquired provinces, to attend the evening classes. The result was that apprentices soon stayed away entirely, and the institution to-day has lost its character as a primary commercial school.

The primary commercial schools of Alsace-Lorraine consist of one in Mülhausen and four small ones in Strassburg. They are all under private management.

THE FREE CITIES.

The cities of Hamburg, Bremen, and Lübeck are the gateways through which pass $2,400,000,000 worth of commerce every year. Naturally, these cities give a great deal of attention to commercial education. Since 1874, the commercial schools of Hamburg have prepared for actual business life 10,150 clerks and apprentices. During the past twenty-five years, Bremen and Lübeck have sent out almost an equal number. The subjects which receive the greatest attention in these schools are: English, French, Spanish, Italian, Danish, Swedish, bookkeeping, stenography, correspondence, commercial arithmetic, and commercial geography. Fully 80 per cent of the pupils study the English language.

NOTES.

A Fortbildungsschule, in the true sense of the term, is a primary commercial school which consists of classes where instruction is given, for the most part, by teachers who are employed at other schools. These teachers receive on an average about $1 an hour for their services.

ERNEST L. HARRIS, *Commercial Agent.*

EIBENSTOCK, GERMANY, *March 21, 1903.*

EDUCATIONAL NOTES FROM SIBERIA.

Richard T. Greener, commercial agent at Vladivostok, Siberia, sends additional notes on education in Siberia. (See An. Rep. of 1899–1900, vol. 2, p. 1427.)

Prof. J. E. Lugebil, an American citizen, retires from active duty as instructor in the English language and literature, with the opening of the Institute for Eastern Languages, on account of the age limit. He is to be succeeded by an Englishman, Professor Boyle, for fourteen years teacher of English at St. Petersburg. There are 11 classes or English lectures in the new curriculum, making 40 lessons per week, as against 30 per week last year.

The new minister of education, a university man, has restored the study of the ancient classics to its old place in the curriculum, and makes the study of French and English elective, instead of obligatory, as before. Latin and Greek are compulsory from the third and fourth grades or classes.

The Technological Institute at Tomsk is authorized to spend 300,000 rubles in addition to the 600,000 already expended since January 1, 1902. The total amount spent on buildings in previous years is 3,000,000 rubles.

Vladivostok is to have a second girls' grammar school. It will occupy the house of the old gymnasium for girls when the new building now approaching completion is finished and dedicated, in November. The new building is spacious, roomy, four stories, conspicuously situated, and will be one of the ornaments as well as utilities of the city.

By a new order, issued by the colonels of their respective regiments, all officers studying in the Institute for Eastern Languages must hereafter attend divine service, not only mornings, but also on Saturday evenings and Sunday mornings, under penalty of being marked "under suspicion."

Morning and evening prayers are also compulsory on all pupils of the girls' and boys' gymnasiums.

By a recent order no foreigner is allowed to maintain a private school in Russia. Of course they may be employed as individual professors.

Many Russian miltary officers, besides their daily routine of duty, teach elementary and often special subjects to their privates. This holds true of the navy, and the daily school for soldiers and sailors is an established institution. A small daily allowance, some 30 kopecks, is granted for this work. The officers engaged are conscientious and enthusiastic, and excellent results are reported.

The subjects for study are mainly elementary, though at times they are of a technical character—telegraphy, electricity, botany, etc. At a recent lecture in the museum on the Roentgen rays, three privates manipulated all the apparatus in an intelligent and careful manner, showing complete knowledge of theory and practice. Many privates turn a penny by putting in electric batteries.

In the navy the studies vary, if at sea or in port. Russia is fully conscious of the vast illiteracy, and these notes are written to show that much is doing to overcome it in public schools, gymnasiums, technical and commercial schools, etc.

Some late statistics give 54 high schools, 16,510 pupils; 880 middle schools, 162,000 pupils; 79,000 primary schools, governmental and private, with an attendance of 4,204,000 in the whole Empire.

At St. Petersburg there is a school for teaching watch-making as an employment suitable for women. The course covers three years. It opened last autumn. Only graduates of the fourth-class girls' gymnasium are eligible.

The Government council has granted 200,000 rubles for a girls' gymnasium at Blagoveschensk.

Even at Sakhalin the children of the convicts are not left in absolute ignorance. Seven thousand six hundred and seventy-three rubles were voted by the council for nine schools at Sakhalin for the children, 17,002.50 rubles to open a grammar school, 5,000 yearly for maintenance from 1902 to 1904, and from 1909, 21,612 rubles yearly.

One hundred and sixty thousand rubles are assigned to build a mechanical school at Nikolsk-Ussurisk, 54,760 rubles for a lower-grade school at Nikolaefsk. From July 1, 1902, 8,300 rubles are allowed for maintenance of the Nikolsk school; from 1904, 16,000 rubles yearly. For the Nikolaefsk school, 1903, 3,362.50 rubles; from 1904, 6,075 rubles yearly. In addition, 108,000 rubles were assigned for an industrial school at Nikolsk, and work upon it began in June last.

While an imperial sanction of the state council decrees these sums from the imperial treasury, something is required from the towns benefited. Nikolsk is assessed 1,500 rubles in 1903; after 1904, 300 rubles yearly, toward support of schools.

Nikolaefsk pays 500 rubles until 1903; after 1904, 1,000 rubles yearly.

With the formation of a new school of mines, a new commercial school, and a new industrial and trade school at Vladivostok, all of which are in various stages of evolution at present, one of the projects of the minister of finance will be in way of accomplishment. About 300,000 rubles are estimated for buildings for the trade and industrial school. The city is willing to assume one-third of this expense, as it has in hand 91,500 rubles for school uses, and has granted an eligible site near the Sharikoff Ravine as evidence of its earnestness in the matter.

If there are not many Carnegies in Russia, there are some Pearsons. A peasant from the village of Aleseefka, Biriuchkofsky district, Smolensk Province, by name Anisim Andreavitch Samoileuko, left 350,000 rubles for a mechanical school to be established in his native village and bear his name, 50,000 rubles for the building

and 300,000 rubles in the Government bank, the interest of which is to support the school.

The increase in the educational fund throughout the Empire for 1902 is noticeable, being 4,000,000 rubles, making a total of 37,000,000 rubles.

The universities will receive some 500,000 rubles, primary and grammar schools 1,700,000 rubles, and 1,000,000 rubles will be expended for new buildings.

Free lectures on natural history, geology, law, physics, etc. (seven lectures), began at Tomsk late in October, on the university extension plan, and have proved very attractive.

At Blagovestchensk about 600 girls are without the primary instruction. Hence the necessity of opening at once the two proposed schools in that city—the Pooshkin and the Lermonteff.

A. M. Pozdnieff, director of the Oriental Institute in Vladivostok, has issued an order that no teacher in the boys' grammar school, attached to the institute, shall give private lessons unless by the director's express permission. His theory is outside work detracts from the instructor's effectiveness in the class room.

Schools for deep-sea navigation.—By imperial order of May 6–19, 1902, five schools for deep-sea navigation are to be established in Russia. One in St. Petersburg, another at Vladivostok, a third at Rostoff on the Don, a fourth at Bakoo City, and a fifth at the settlement Magnushoff.

The yearly appropriation for all of these schools amounts to 95,822 rubles.

The three years' studies will consist of: (1) Religion, (2) Russian language, (3) algebra, (4) geometry, (5) trigonometry, (6) navigation, (7) nautical astronomy, (8) sea practice, (9) arrangement and theory of vessels, (10) steam engineering, (11) meteorology applied to weather forecasts, (12) geography of the sea and the main points of commercial geography, (13) marine law, (14) marine bookkeeping and commercial correspondence, (15) marine hygiene, and (16) English language.

The school year commences in November, and the examinations take place in April.

Improving the health of school children.—During the last session of the directors of the middle schools of St. Petersburg, the application of the recommendations of the minister of public instruction with regard to the improvement in health of school children was a subject of debate.

It was stated at the meeting that several middle schools have introduced one free day on weeks that contain no legal holiday. Others, again, introduced such extra holidays after the first and the third quarters of the school year, when the children habitually show signs of lassitude. The taking part in the proposed excursions is not to be made obligatory, as it may come to be considered a hardship.

The conclusion has been reached that the time of recess should be made longer; after the first lesson, ten minutes, instead of five; after the second, twenty minutes, instead of ten, and after the third, forty minutes instead of thirty.

Labor legislation.—A recent circular comes from the ministry of finance, addressed to the inspectors of textile fabrics. Every industrial enterprise depends primarily on the workingman. The general condition or state of each nation's industry, when in competition with the world's industry in open market, is undoubtedly measured by the spiritual level or progress of the mass of workingmen and their technical ability. To raise this level is an affair of greatest importance. The ministry of finance has, therefore, outlined a scheme for promoting technical schools and general lectures, which have met the approval of the government council, and have the imperial sanction. The main outline of the scheme is purely practical, relating to the study of the variety and flexibility of all forms of industry and their connection with material and shop activity. The introduction of these technical schools of fabrics and methods is designed to strengthen the amicable relations between the pupils, the workmen, and the proprietors. Such schools can only teach properly when

they furnish correct views of factory life, of materials, all conditions of factory organization, and knowledge of all the Government regulations and legislation relating to industry. These elementary notions can best be inculcated by the Government officials of labor inspection, who stand nearest to all industrial work, who have received the higher technical training, and are competent in all lines of technical study.

On these grounds the new regulations, by imperial sanction, place the new technical workshops, schools, and lectures intimately in relationship with the rigid inspection of factories and workingmen, charging such inspectors with the guardianship of these workshops and lectures and the soundness of the educational system. With this preliminary, the minister of finance urges the inspectors to use every possible means to encourage the opening and advancement of these schools.

Table of lectures in the Oriental Institute at Vladivostok, academic year 1901–2.

	First course.	Second course.	Third course.	Total during the week.
Chinese language	16	13	14	43
Manchurian language	.....	7	7	14
Mongolian language	.....	7	8	15
Japanese language	.....	12	10	22
Korean language	.....	12	10	22
English language	12	8	5	25
French language	4	3	3	10
Theology	2	.....	.....	2
Geography of the Orient	3	.....	.....	3
Political economy	2	.....	.....	2
Political organization of China	.....	2	1	3
History of the Orient	.....	1	2	3
Civil law	.....	.....	3	3
Political organization of Mongolia	.....	2	1	3
Bookkeeping	.....	.....	2	2
Total number of lectures	39	67	66	172

Remark.—The second and third courses are divided into four faculties, i. e.: (1) Chinese-Manchurian, (2) Chinese-Mongolian, (3) Chinese-Japanese, (4) Chinese-Korean.

Number of students.

	Students.	Army officers.	Priests.
First course	20	12	.....
Second course	24	4	1
Third course	10	4	1

Total, 76.

Staff of professors and teachers.

1. Prof. A. Posdnieff, Manchurian and Mongolian.
2. Prof. P. Schmidt, Chinese.
3. Prof. A. Roodakoff, Chinese.
4. Prof. E. Spalvin, Japanese.
5. Prof. G. Podstavin, Korean.
6. Father Bulgakoff, theology.
7. Mr. T. Boyle, English.
8. Mr. Takella, French.
9. Mr. Kohanofsky, law.
10. Mr. Sasersky, bookkeeping.

11–16. Six natives: 3 Chinese, 1 Japanese, 1 Korean, and 1 Mongolian.

Table of lessons in the boys' grammar school in Vladivostok, school year 1901–2.

Classes.	Penmanship and drawing.	Theology.	Russian.	English.	French.	German.	Latin.	Greek.
Preparatory	6	4	6	.....	.....	.....	.....	.....
First	4	2	5	5	.....	.....	.....	.....
First parallel	4	2	5	a 5	a 5	.....	.....	.....
Second	2	2	4	5	.....	.....	.....	.....
Second parallel	3	2	4	a 5	a 5	.....	.....	.....
Third	2	2	4	3	4	.....	4	.....
Fourth	.....	2	4	4	3	.....	4	.....
Fifth	.....	2	3	3	3	.....	5	6
Sixth	.....	2	3	3	2	.....	5	6
Seventh	.....	2	3	3	.....	2	5	6
Eighth	.....	2	3	3	.....	2	5	6
Number of lessons during the week	21	24	44	39	22	4	28	24

Classes.	Mathematics.	Geography.	History.	Natural history.	Cosmography.	Physics.	Logic.	Total during the week.
Preparatory	6	.....	.....	.....	.....	.....	.....	22
First	3	3	2	2	.....	.....	.....	26
First parallel	4	2	2	2	.....	.....	.....	26+5
Second	4	3	2	2	.....	.....	.....	24
Second parallel	4	3	2	2	.....	.....	.....	25+5
Third	4	2	2	.....	.....	.....	.....	27
Fourth	4	3	3	.....	.....	.....	.....	27
Fifth	4	.....	3	.....	.....	.....	.....	29
Sixth	4	.....	2	.....	.....	2	.....	29
Seventh	3	.....	2	.....	.....	2	.....	28
Eighth	2	.....	2	.....	1	2	1	29
Number of lessons during the week	42	16	22	8	1	6	1	302

a Either five.

Number of scholars 284
Number of teachers 18

Remarks.—Gymnastics and choral singing, each three times a week, during recess.

Either French or English is obligatory in the first and second classes, but both modern languages are obligatory studies in the higher classes.

The study of German will cease in 1903 and French be substituted.

After 1904 [a] no more Greek will be studied, and Latin will become optional. Instead of Greek a more extensive study of natural history will be introduced, as well as chemistry, hygiene, and law.

[a] The rule of the new minister of education (see p. 881) would seem to retain Latin and Greek in the gymnasium.

CHAPTER XXII.

HENRY BARNARD.

I. Henry Barnard's services to education in Connecticut.
II. Henry Barnard as first United States Commissioner of Education.
III. Establishment of the office of the Commissioner of Education of the United States, and Henry Barnard's relation to it.

I.—HENRY BARNARD'S SERVICES TO EDUCATION IN CONNECTICUT.

REMARKS AT THE CELEBRATION OF HENRY BARNARD'S BIRTHDAY IN HARTFORD, MONDAY, JANUARY 25, 1897.

BY W. T. HARRIS.

It is deemed a piece of good fortune that we are able to recognize and acknowledge the services of a public benefactor while he is yet living in our midst. Most recognition comes too tardy for the purposes of comfort and consolation of the hero himself. We build high the monument and place the portrait statue in our public square, not only to commemorate the patriotic citizen who has benefited us by his life, but also to confess our churlish neglect of his services while he lived. It is therefore doubly a cause of rejoicing with us to-day that we are assembled here to celebrate the birthday of a public benefactor who still lives to receive our tribute of respect and mingle his joy with our own. For it is even a greater pleasure to him than to us to see the cause that he advocated with sacrifices of labor and money under circumstances of apathy and neglect, or even of active opposition and some opprobrium, now become everywhere a triumphant cause throughout the entire nation.

The State which furnished the smallest amount of schooling to its people in 1895 gave an average quite equal to that offered by Connecticut in 1839. It may be doubted whether Connecticut or Massachusetts gave an average of more than two full years of two hundred days each to every inhabitant in 1830. Now Connecticut is giving nearly seven years as the average quota that every child receives before manhood and womanhood. In fact, the average schooling of the nation at large is four and one-half years, or double the amount received in Connecticut and Massachusetts at the beginning of the great revival in public education, sixty years ago, in New England.

It was only last year that the centennial anniversary of the birth of Horace Mann was commemorated throughout the nation. We are all fresh from the reading which we undertook anew for the purpose of understanding that remarkable epoch, and to-day we recall again the same historical data, because Henry Barnard was for us, the people of Connecticut and Rhode Island, the initiator of an educational revival corresponding to that of Horace Mann in Massachusetts. By common consent public opinion has placed Henry Barnard side by side with Horace Mann as his great coadjutor, for he has supplemented the work and universalized it by collecting in one great body the written records, not only of this movement, but of all similar

movements in the history of mankind. He has made accessible the wisest and best things that have come from the experience of the race in the matter of founding and conducting schools.

To see the significance of both phases of this movement it is necessary to consider the original status of these colonies and the necessary steps of their progress into membership within a great nation. All the colonies of New England owe their beginning to migration for religious purposes. Their first institutions were church societies, in which a very radical form of democracy was united with an intensely exclusive form of ecclesiasticism. The earliest proceedings of their governing bodies are forever memorable for the adoption of measures to secure the school instruction of all the inhabitants. But the civil community had not yet separated and become independent of the ecclesiastical. A struggle began soon after the restoration of the Stuarts to the throne of England—as early as 1665—to widen the civil functions and extend civil rights beyond the limits of the church organizations. This movement made great progress after the revolution of 1689 and on through the following century. The school was the chief agency through which the separation of the church and state was accomplished.

In Connecticut at first the town was one with the church society; but in time new branch societies were formed in the same town, and the civil interests began to have a wider scope of application than the ecclesiastical. But the school affairs were administered by the church societies until 1798, when the moneys came in from the sale of the Western reserve lands in Ohio. The State refused to give to the churches a share of this fund, but devoted it all to schools. Then new corporations (named in the law school societies) were formed to receive and distribute the school funds to the several districts and exercise supervisory functions so far as to examine teachers and occasionally inspect their schools, the district committeemen employing the teachers and fixing their terms of service. These school societies were coterminous with the religious societies, which they superseded in the control of schools.

The great fund derived from the sales of its Western land amounted by 1810 to $1,200,000, and by 1825 to one and three-quarter millions, its annual interest being nearly $150,000 for the support of schools. For a century previous there had been a compulsory tax of one-fifth of a cent on each dollar of property set apart for the support of schools, being in 1810, 45,000; 1825, 72,000; 1840, 103,000. Possibly this may have yielded as much as $20,000 by the year 1800, when the total valuation of the State may have been about $10,000,000.

A general State tax is not felt by the school committeeman ever so miserly inclined. He can not relieve his district financially by administering his schools on a basis of rigid economy so far as concerns the expenditure of what he receives from the State as a whole.

But he may limit the school expenditures of his district or his town to the smallest possible outlay beyond these revenues, as this surplus will fall as a special burden on himself and the other people of his district. There must have been a considerable contribution to the school fund on the part of towns and districts before the year 1800, perhaps the bulk of it being in the form of rate bills or tuition fees paid by the parents of the children in actual attendance on the schools. But such contribution must have nearly ceased after the distribution of the annual income from the school fund began. The revenue per child of school age was increased threefold. The results were so stimulating to the schools that Connecticut became famous for its public education, and doubtless it received large accessions of immigants for this cause alone from the neighboring border populations of Rhode Island and Massachusetts.

The fund being a fixed quantity and the increase of school children a progressive one, the annual quota per child constantly grew less, and the schools ceased to improve. The people had become unused to tax themselves for school purposes;

they disliked rate bills and preferred to shorten the school session or employ cheaper teachers, so that the schools might involve no burden of local expense. The prestige of Connecticut schools began to wane, and the fact that the church lost some of its interest in the schools after the direct responsibility was transferred from the ecclesiastical society to the secular corporation called the school society added very much to the decadence of the standard excellence of the instruction.

The trumpets of alarm were first sounded in and about Boston, where the urban growth had made possible a better type of schools, and a large body of highly enlightened men began to feel sensibly the need for higher ideals in the education of the people. It can not be supposed that Connecticut was at so low a status as Massachusetts in its public schools, even as late as 1835, but three or four years of Horace Mann's administration easily left the boasted prestige of this State behind.

The epoch from 1820 to 1850 is remarkable in the history of the Northeastern States for the introduction of two great instruments of modern civilization—first, machinery in the manufactures, such as the power loom, spinning machines, and the like; next, the railroad locomotive and the stationary engine for the use of the mill. A new era of productive industry was ushered in. Perhaps the total product of all the industries of the United States in 1800 did not exceed 10 cents per day for each inhabitant. That of Russia at present does not exceed 15 cents per capita. But by 1850 the quota had risen to 25 cents, and in 1890 it was nearly or quite 50 cents as the average for the entire nation, while Massachusetts, Rhode Island, and Connecticut, thoroughly equipped with machinery, the railroad, and the common school, produced nearly $1 per day for each inhabitant.

The common school, by teaching reading, writing, arithmetic, and geography to the child takes him forever out of the fixed and immovable status of soul that belongs to lower civilizations, and by placing each individual into relation with his fellowmen by the agency of the printed page, sets him on the road of continued education, for he enters the spiritual process which goes on in the formation of public opinion. Each individual gives and takes—molding this opinion and being molded by it, but always in a state of continual education, never any longer to be classed with the people in a state of arrested development.

This urban epoch, ushered in by the power loom, the railway car, and the daily newspaper, must have as its concomitants the graded school, the professional teacher, and the expert supervisor of schools, for the village grows into a city and the district school of 1 teacher and 20 pupils of all ages and grades of advancement yields place to the union school, with its clustered group of primary rooms and grammar rooms all arranged in an ascending hierarchy, with small intervals between the classes and each class containing pupils of the same degree of advancement. The old process of recitation, in which the teacher heard the pupil say the words of the book with little or no explanation of the ideas in his own language and with no probing questions on his (the teacher's) part—for there were only five or six minutes available of the teacher's time for the whole recitation—has given place to class recitations of twenty to thirty minutes each, and the contents of the lesson are probed to the bottom, so that each pupil goes to the work of preparation of his new lesson with some new glimpses of the true method of study. He has learned through the well-conducted recitation of some defects of his habits of study, some lack of alertness which allowed critical points to escape him before, but he will not fail again to-day in those particulars. The graded city school, besides this training of the pupil in methods of study, also gives him a will training in the moral habits of regularity, punctuality, silence, and self-restraint, giving him a sense of his responsibility to so act that his deeds may not hinder others, but help them to help themselves.

With the great revival of education led in by Horace Mann, Henry Barnard, and their coadjutors, the school session was lengthened from three or four months to ten or eleven months, and the makeshift teacher, who worked on the farm in the sum-

mer and "kept" (not taught) school in the winter, gave place to the professionally trained teacher, who made a business of school-teaching.

The era of normal schools began with that at Lexington in 1839, and was followed by those at Barre and Bridgewater and the New York school at Albany, and next by the honored institution at New Britain, in this State. In 1896 there had come to be 161 public normal schools and 165 private ones, 326 in the aggregate for the United States.

The graded schools improved rapidly in the new epoch, and in 1847 the justly celebrated Quincy School in Boston was opened under John D. Philbrick (well known to our Connecticut State normal school alumni), and each teacher was assigned 40 pupils for exclusive supervision and the conduct of studies. A new epoch began in discipline from this date with the adoption in cities of the Quincy-School plan, and a better school discipline was secured with a minimum of corporal punishment.

The experience of Massachusetts, Rhode Island, and Connecticut with supervision under Horace Mann and Henry Barnard led to the adoption of school superintendents in one State after another, until all the States have secured supervision by experts.

We have seen that the era beginning with the independence of the colonies from Great Britain in the year 1790 is an era of transition from ecclesiastical authority to civil authority, and that during this period the schools suffered from the change of basis. The ecclesiastical leaders were supplanted by secular leaders, but not for some time by leaders equally competent. Moreover, the great school fund which stimulated the school system in the highest degree up to the year 1820 afterwards furnished a continually decreasing amount for each child of school age, and the deficiencies were not met by local taxation. The school system declined in efficiency, and the rising consciousness of the defects of that system produced the reformers of the epoch from 1820 to 1840. The reform movement meant the better provision for schools on the part of the States and especially a provision for the better education of teachers in the theory and practice of their art. Certainly one of the two greatest movements in this reform was the measure inaugurated by our Connecticut hero, Henry Barnard, to provide for an educational literature, giving the history of all educational movements, and, besides this, containing translations or the original English of the great writings of pedagogy since the beginning. This movement is justly called one of the two greatest, because its usefulness can not be limited by State boundaries. The American Journal of Education, with its 31 volumes, is just as useful reading in California, Texas, North Dakota, Canada, Australia, England, and Scotland as it is in Connecticut, and Dr. Barnard has won the thankful recognition of professional teachers in all these places for his great work.

We celebrate here to-day, therefore, the person who in his early manhood consecrated his life to education. Here are his words uttered at the beginning of his career, words which ought to be printed in gold letters in a conspicuous place in the capitol of this flourishing Commonwealth:

> So far back as I have any recollection the cause of true education, of the complete education of every human being without regard to the incidents of birth or fortune, seemed most worthy of the consecration of all my powers and, if need be, of any sacrifice of time, money, and labor which I might be called upon to make in its behalf.

This declaration sounds like a prophecy, for our honored citizen has devoted all his time and all of a considerable inherited fortune in making accessible in the form of books what is recorded of the wisdom of the race as relates to the instruction of children.

The nation rejoices with Connecticut to-day in paying this tribute of respect to the great educational counselor of the past fifty years, for Dr. Barnard has been always retained as a counselor on all difficult educational questions by State legislatures,

municipal governments, and the founders of new institutions of learning. The nation assists you to-day in this celebration of the man who has expended his time and fortune to print and circulate an educational course of reading of 24,000 pages and 12,000,000 words. It assists you in bearing testimony to Henry Barnard as the missionary of improved educational methods for the schools of the people, the schools which stand before all other philanthropic devices because they alone never demoralize by giving help—they always help the individual to help himself.

II.—HENRY BARNARD AS FIRST U. S. COMMISSIONER OF EDUCATION.

BY REV. A. D. MAYO, A. M., LL. D.

In a biographical sketch of Dr. Henry Barnard by the writer (chapter 16 of the Report of the U. S. Commissioner of Education for 1896–97) is found the following estimate of this man, rightly named by one of his German admirers, Dr. Wimmer, "The veritable reformer of popular education," and by another foreign writer, "The world's educational orator:"

The time [1830–1850, the period of the first great revival of the common school] was ripe in our country for the appearance of a great national representative of the literary side of popular education. There was an imperative need of a man of large native capacity, broad culture, and catholic temperament, competent to gather into his capacious mind the entire condition of educational affairs in all civilized lands; a man by birth, education, and social connections commended to the educated class of the whole country, yet of a patriotism so intelligent and intense that he should be found ready to cast in his lot as a day laborer, and, if need be, a martyr, in the supreme cause of the uplifting of the masses of this Republic. He should be one who could set before every class of earnest and active teachers and educational workers the best results of educational thought and activity through Christendom in a form that would strongly commend itself to the foremost minds at home and abroad. Such a man was Henry Barnard, of Connecticut, the great colaborer and complement of Horace Mann.

Henry Barnard was born in Hartford, Conn., in 1811, and died in 1900, in the ninetieth year of his age, in the room in the house where he was born. He entered Yale College when only 15 years old, and graduated in 1830, at the age of 19. In 1835, at 24, he was admitted to the bar as a lawyer. His training in the common schools, a celebrated private academy, and Yale College was supplemented by two years of travel in the United States and Europe as a further preparation for the profession which he regarded the occupation of his life. In these journeys he formed the acquaintance of many of the most distinguished men in America and other countries. In 1837 he returned to Hartford, and at the age of 26 was elected a member of the general assembly of Connecticut.

From the year 1837, to the day of his death in 1900, the most remarkable sixty-three years in American educational history, he was always recognized as among the foremost educators of his own country, and especially conspicuous as for many years the medium by which the history and condition of education in Europe was transmitted to the United States.

During the twenty-five years from his first appearance as an educational reformer in Connecticut in 1837 to the outbreak of the civil war in 1861–62 he was engaged at different times in the State superintendency of common schools in Connecticut and Rhode Island and as chancellor of the University of Wisconsin. In the administration of the affairs of every local position he kept in view the larger interests of national education. All his reports, even the first concerning the public schools of Connecticut, praised by Chancellor Kent of New York as a classic in popular education, were uniformly in view of a national audience.

It was a significant fact that despite the powerful physical constitution of Dr. Barnard, which carried him through a working period of nearly seventy years, his health always failed in every post of school administration. He was reluctant at first to undertake the severe task of reforming the common-school system of Connecticut in 1837, and never felt quite at home in any executive position. He declined the invitation to become chancellor of two State universities, Indiana and Michigan, and retired from the two university positions he did accept, the State colleges of Wisconsin and Maryland, after a brief term of service. He never felt so really himself as when through his tireless pen or eloquent voice he was dealing with a national audience. His great work, the American Journal of Education, after the prodigious literary fertility of the nineteenth century in educational material of permanent value still acknowledged as the best encyclopedia of popular education, was the best expression of himself. Its collection of useful information, doubly important during the period of the two great revivals of the people's common school, from 1830 to 1850 and 1870 to the close of the century; its fertility in the details of home schooling, which makes it in many cases the only reliable authority in American educational history; its judicial impartiality in the treatment of all sorts and types of educational institutions, ignoring both sectarian religious and partisan political prejudice; its characteristic spirit of optimistic estimate of educational systems and methods in advance of the time, which in one or another shape have become incorporated with the various school organizations of the country; in these and other ways we note the vast field in which he was most content to abide. He was, perhaps, the first of our eminent Northern educators of the many who were called to the management of Southern educational foundations to visit that section of the Union as an advocate of what has since become in fact, though not in legal form, our American system of common schools for all classes and conditions of the people. He was all his life the friend and adviser of the leaders of every important movement for educational reform in every State, from Horace Mann and his colleagues in Massachusetts to the men who shaped the educational systems of the new States of the West. He always worked with enthusiasm in the teachers' institutes, the American normal school on wheels, which at the beginning of the common-school movement comes to every rural locality like a big omnibus, crowded with the best school men and women of the country, for a brief time holding the educational public of the place under the spell of its high thinking and friendly, familiar speaking. And nobody has published more in explanation of the normal school. One of his first college essays was a defense of the higher education of young women, and he was the fast friend of, and at one time the coworker with, Mrs. Emma Willard, the distinguished principal of the seminary at Troy, N. Y., for the secondary and superior training of girls.

Indeed, it would be difficult to name the department of educational activity in the century in which Henry Barnard did not appear as a most welcome, suggestive, and inspiring worker. His great success was not as an administrator of school systems or an author of special treatises, but as in himself a great personal magazine of valuable information; and it may be said that while our own country, especially in the persons of its leading presidents of colleges and academies and State and city superintendents of instruction, has produced a body of literature and a record of effective service that may challenge respect everywhere, no man has yet appeared to fill the peculiar place of Henry Barnard.

His labors in Connecticut and Rhode Island in reorganizing an antiquated and crude arrangement for popular schooling into the American system as outlined by the great reformers of the period between 1830 and 1850, had favored his application of general principles to the social conditions then existing. His early excursions through the Western States, then experimenting on their present systems of public

instruction, had enlarged his ideas of the possibilities of the common school, the most original of our American new departures. His fine catholicity and aloofness from bondage to religious, political, and social prejudice commended him to two cultivated cities of the South, New Orleans and Charleston, which were encouraged and aided by his visits to begin the work of the general free schooling of their white children and youth. His wide acquaintance with the best that was going on in Europe qualified him to publish the results there obtained, with thorough understanding of the conditions under which this information could be accepted and used in the United States.

It was inevitable that the broad interest in what he regarded in fact, if not in name, the American common-school system, should at an early period have directed his mind to the importance of some form of national indorsement, if not of national control, of the people's university by the General Government. The same idea has been ascribed to Horace Mann, and there can be no doubt, even if the proposition does not appear in his published writings or correspondence, that the logic of the great educational movement that dates from his appearance implied what is now the established policy in the support of the National Bureau of Education. Dr. Barnard was never far behind his great chief and associate. In a written statement made to the author of this essay a few months before his death Dr. Barnard speaks of his connection with the introduction of education into the national census in 1838–1840. In 1838, when secretary of the Connecticut State board of education, Dr. Barnard visited Washington to ascertain what school statistics and educational documents existed in the Library of Congress and pigeonholes of any department of the Government. After consultation with Dr. Lieber, F. A. Packard, and others, who had previously issued a pamphlet on census returns, he was referred by Mr. Forsyth, of Georgia, then Secretary of State in charge of the census, to Mr. Hunter, chief clerk, who had the schedules for 1840 in hand, and who informed him that up to that time nothing on this point had been done. After consultation, a memorandum was placed in Mr. Hunter's hands of the points thought desirable to be included; the schedules, as issued, included its main features, and returns were subsequently obtained, tabulated, and published. The returns, by order of Congress, were communicated to Dr. Barnard and Mr. Mann in advance of their official publication, and were used by them after their accustomed fashion.

Ten years later Dr. Barnard, in an address before the American Institute of Instruction, held at Northampton, Mass., in August, 1850, called the attention of the institute to the importance of a central agent, and urged the institute to broaden the field of its action and include such an officer for New England at least. The subject was discussed and Dr. Barnard thanked for his address; and it was voted to refer to the government of the institute a resolution by him covering the following points: To make application to the legislature of each New England State for a pecuniary grant to enable the institute to appoint an agent or secretary devoting his whole time to advancing its objects; the enlargement of the library of the association or proposed depository in connection with the Massachusetts board of education; the publication of a New England Journal of Education under the cooperation of the State teachers' association and State educational authority of each State; a series of educational tracts or essays for popular circulation; an annual report of the condition of the common schools in each of the New England States; and a sketch of the progress of education in other States.

Four years later, in 1854, the idea first suggested by Dr. Barnard in this address, of an agent concerned with the educational affairs of the whole country, was again presented by Dr. Barnard before another association, as will be narrated further on.

Among the numerous movements in behalf of universal education directly and indirectly connected with the great revival of the people's common school, covering

the thirty years from 1830 to 1860, one especially should be noted, both from its breadth of interest as a national organization of several hundred of the most eminent educators of the country and from the relation sustained to it by Dr. Barnard.

In response to a call for a "national convention of the friends of common schools," signed by Bishop Alonzo Potter, of Pennsylvania, and 36 others, including Horace Mann and Henry Barnard, a convention assembled in Philadelphia on October 17, 1849, consisting of some 200 men fairly representing the leading educational body of the country, presided over by Horace Mann, and including in its board of officers Joseph Henry and Samuel Lewis. The meeting, which remained in session three days, was opened by an inspiring address from the president, Horace Mann, to an audience representing 15 States of the Union, all its members well known, and many of national reputation. The address was an eloquent plea for "a national organization of teachers," by which "great and comprehensive plans may be devised, to whose standard each State may be gradually brought into conformity." "Let us devise systems of education," said the president, "that shall reach every child that is born in the land."

On motion of Mr. Henry Barnard, of Connecticut, it was

"*Resolved*, That a committee of five, to be called the 'business committee,' be appointed by the chair to prepare business for the convention."

The president appointed to be this committee Henry Barnard, of Connecticut; John S. Hart, of Pennsylvania; Nathan Bishop, of Rhode Island; H. H. Barney, of Ohio; Thomas H. Benton, jr., of Iowa.[a]

The next day the business committee reported three resolutions, of which the second was as follows:

"*Resolved*, That a committee of five be appointed to prepare a memorial to Congress, asking the establishment of a bureau in the home department for obtaining and publishing annually statistical information in regard to public education in the United States."

Made the special order for to-morrow at 12 o'clock m.[b]

The following day "The second resolution was adopted as reported by the committee."[c]

Dr. Barnard, from the business committee, proposed ten topics for consideration "relating to the organization and administration of a system of public instruction, adapted to different sections of the United States."

Another committee of five, of which Dr. Barnard was chairman, proposed to define and recommend some "rules which ought to regulate the future legislation of States and towns" concerning the formation of school districts throughout the country. Also a committee of three, Henry Barnard, chairman, was appointed to "prepare a digest of the school systems and educational statistics of the several States, and report to the next convention."

The discussions on these topics included almost every subject, and probably no previous meeting of educators in the country had ever included so large a number of men vitally connected with the common-school system as the two hundred and more whose names appear in the list of delegates.

That the suggestion of Dr. Barnard concerning the establishment of a bureau in the home department of the National Government had touched a vital chord in the thinking of the higher educational public is evidenced by the fact that, two years later, a committee was appointed at a meeting of the officers of the American Institute, held at Lynn, Mass., January 4, 1851, of which Mr. John D. Philbrick was chairman, "to consider the expediency of petitioning Congress with reference to the establishment of an educational department at Washington."

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[a] See p. 11 of Proceedings of the National Convention of the Friends of Public Education, held in Philadelphia October 17, 18, and 19, 1849. Philadelphia: E. C. & J. Biddle, 6 South Fifth street, 1849.

[b] Ibid., p. 16.

[c] Ibid., p. 19.

The second meeting of the National Convention of the Friends of Education was held in Philadelphia August 28–30, 1850; Rev. Eliphalet Nott, president of Union College, New York, temporary president, Henry Barnard, a member of the business committee. The President of the United States had been invited to be present. A strong resolution was adopted urging upon every State the "political and Christian duty," of providing a system of free schools. An organization was effected under the general title, "The American Association for the Advancement of Education," whose object should be "to promote intercourse among those who are actively engaged in promoting education throughout the United States; to secure the cooperation of individuals, associations, and legislatures in measures calculated to improve education, and to give to such measures a more systematic direction and a more powerful impulse." All members of the two conventions could become members of the association by paying an admission fee of $2; also delegates from colleges, universities, incorporated academies, normal and high schools, from State, county, or other educational associations, to the extent of three from each, besides such distinguished educators and friends of education in other countries as might be elected by the association. Life members paid $25. Philadelphia was selected as a permanent place for the reception of all literary material connected with the association.

At this meeting, which continued three days, Dr. Barnard reported as chairman of the committee "to prepare a digest of school systems and educational statistics of the several States," that during the past ten years he had collected more than 1,000 documents for the purpose of preparing the history of education in the United States, from which he would present a report later, including among other topics "the action of the General Government in reference to education and science, grants of land, the Smithsonian Institute, professional schools, normal schools." In connection with the report of this convention is printed the well-known document on "Principles of school architecture," by Dr. Barnard.

The third convention and first session of the American Association for the Advancement of Education was held in Cleveland, Ohio, in August, 1851, Bishop Alonzo Potter, of Pennsylvania, president. The burden of the president's eloquent opening address was that the new association was not merely national but continental, an American association, knowing no dividing lines between East and West, North and South. He emphasizes "the comprehensive and catholic character of our principles." At this meeting Dr. Barnard reported in part on educational systems, and was appointed a member of the standing committee. A communication from Rev. A. A. Livermore, of Cincinnati, on the subject of a national educational bureau at Washington, was referred to a committee of three: Hon. Bellamy Storer, Rufus King, of Cincinnati, and Horace Mann, of Massachusetts. Dr. Barnard was requested to append to the published proceedings a "condensed form of the statistics which he has collected in regard to systems of education in different States." He was also made chairman of a committee of three to report upon the "value of education to all the industrial interests of the country."

In August, 1853, the association assembled for four days in Pittsburg, Pa., Prof. J. Henry, of Washington, president. The retiring president, Bishop Potter, again dwells with great earnestness upon the necessity of the union of the educators of the country for the common purpose, and urges that a premium be offered to the author of the best book on "Education for the times." Among the resolutions offered was one advocating "one great institution of a national character," including a general museum of natural history and botany. An attempt was made to raise the sum of $5,000, to be used as premiums for educational treatises. Prof. Alexander Dallas Bache, of Washington, D. C., was elected president. Dr. Barnard was detained by sickness in his family. Delegates from abroad addressed the meeting.

The fourth session of the association, held at Washington, D. C., December, 1854, was remarkable for the introduction, by Dr. Barnard, of the subject of appointing a

general agent to devote his whole time and energies to the advancement of the purposes of the association. Bishop Potter offered a resolve bearing on this subject, in which reference is made to "the results of the inquiries some time since instituted by a member of this association, at the instance of one department of the General Government, in regard to the present state and past history of education in the United States." The standing committee was instructed to consider and report specifically at the next meeting on the plan for the employment of a permanent agent by the association proposed by Dr. Barnard.

This plan provided for the appointment of a secretary or agent, with permanent headquarters as a depository of official documents and apparatus. This official, appointed by the association or the Smithsonian Institution, should "devote himself exclusively to the increase and diffusion of knowledge on the subject of education, especially of the conditions and means of improving popular education;" also "answer all personal and written inquiries on the subject, and collect and make available for use information as to all advances made in the theory and practice of education in any one State or country." He should attend educational conventions, national or State. He should edit a publication to be entitled, "The American Journal and Library of Education," on a plan set forth in an accompanying paper. He should "collect plans and models of schoolhouses and furniture, specimens of maps and other material aids of education, and educational reports and documents from other States and countries." He should institute a system of educational exchanges between literary institutions at home and abroad. He should submit annually a report containing a "summary of the progress of education in each State and, as far as practicable, in every country."

In connection with this document, Dr. Barnard placed before the association an elaborate "Plan of publication—A quarterly or monthly issue under the general title of The American Journal and Library of Education." This included: (1) A quarterly or monthly journal of education, making an octavo volume annually of at least 600 pages; (2) a library of education, to consist of a series of independent treatises, to be forwarded to the subscribers of the journal to the extent of another volume of equal size. He includes the topics of these treatises under 32 heads, "constituting when complete an encyclopedia of education." A third annex to the plan is a history of education in the United States, for which large amounts of material had already been collected, although the progress of the work had been interrupted by the service of Dr. Barnard as superintendent of public education in Rhode Island from 1843 to 1849, and by a recall in 1851 for a second term as State superintendent in Connecticut, from which he retired in 1855.

It is evident that during the entire existence of the American Association for the Advancement of Education the mind of Dr. Barnard was laboring with the idea of the nationalizing of the American common school by every practicable method. Indeed, the association itself seemed to exist chiefly to that end. It is not unlikely that this remarkable representative body of educators from every section were moved with the idea of bringing this fundamental obligation of the people to the front as perhaps a breakwater against the political agitation that, during the entire decade from 1850 to 1860, is now seen to have been in fact the preliminary skirmish of the civil war. It was when the halls of Congress were ringing with the loud debates inaugurated by the presentation of the Nebraska bill, every year more exasperated by the disorders that involved the border land of Kansas and Missouri in an actual state of warfare. All the proceedings of this body of educators, which only dissolved on the organization of the National Teachers' Association in 1856–1858, had but one logical tendency—that in some way the National Government should interest itself again in the education of the whole people. The original act of the appropriation of the public lands to the new States by the Congress of the Confederation had

been at once ratified by the new republic. At a later period the movement by the legislature of Maryland for including the original 13 States in this distribution had excited great attention. Of course such a thought as was expressed in 1849 in the resolution of the committee of which Dr. Barnard was chairman for a memorial to Congress in behalf of a "bureau of the home department" for the distribution of statistical information, and in the communication presented in 1851 by Dr. A. A. Livermore, of Cincinnati, and referred to a committee consisting of Judge Bellamy Storer and Rufus King, of that city, and Horace Mann, was not the private property of any one man, however eminent. Dr. Barnard simply looked farther or was more optimistic than his associates in presenting this topic as practically the first in importance for the consideration of the first Philadelphia convention. It is to be observed that to no man in that body of remarkable men was assigned the chairmanship of so many committees dealing with every phase of popular education now represented by the national bureau.

At the last meeting of the American Association, in 1855, the standing committee reported that they had taken into consideration the entire plan of Dr. Barnard, but "from want of funds had been able to take no definite action in regard to the matter." This included the appointment of a general agent and the publication of a national journal of education, for which the association was "not authorized or prepared to assume the responsibility." Dr. Barnard then proposed to undertake the publication of such a journal, the first number to consist of the proceedings of that body. His proposition was assented to, with the distinct understanding that the association should in no way be responsible for the conduct of the journal or pecuniarily liable. It is evident that the association, apart from its very small entrance fee of membership, had little control of funds, there being no report of the collection of the proposed $5,000 for offering premiums for educational authorship. It was evidently vain to suppose that Congress, on the eve of a war for the preservation of the Union itself, could be persuaded even to look at a proposition to make common-school education a national interest. Thus, while the Association for the Advancement of Education was willing to give a perfunctory indorsement to a scheme so vast and comprehensive as that of Dr. Barnard, the plan itself died in the hands of the standing committee to which it was referred. The notion of any union between States so wedded to their own convictions of popular education as those of the old North and new West; the vain hope of bringing the positive and aggressive representatives of the great religious bodies into any hearty approval of anything above the common district elementary school; the absolute impossibility of moving a single Southern State to unite with Northern educators in behalf of an educational system so closely identified with the entire industrial, civic, and social status of that section; these and other reasons were all sufficient to dissuade that association from any serious attempt to give bodily shape to the elaborate plan of Dr. Barnard.

After a year's waiting on his colleagues, he declares:

> In the absence of any funds belonging to the association and of any pledge of pecuniary cooperation on the part of individuals the committee have not taken any steps to establish a central agency for the advancement of the objects for which the association was instituted, or felt authorized to provide for any publication beyond the proceedings of its last annual meeting. Under these circumstances the undersigned has undertaken, on his own responsibility, to carry out the original plan submitted by him so far as relates to the publication both of the journal and the library, relying on the annual subscriptions of individuals in different States, and interested in different allotments of the great field, who desire to be posted up in the current intelligence and discussion of schools and education, to meet the current expenses of the former.[a]

[a] Barnard's Journal, Vol. I, pp. 1-2.

In fact, during the remaining years preceding the war the subject of a national bureau of education rarely appears in the proceedings of the National Teachers' Association, by which it was finally forced on the attention of Congress in 1866. A few speeches and resolutions in 1858, 1859, and 1860 are all that appear in the document relating to the establishment of the office of commissioner of education read before the National Educational Association in 1901, by the present U. S. Commissioner of Education. During that period Dr. Barnard seems to have made no special point of the subject. In fact, during the existence of the American Association, he was engrossed in the duties of his second State superintendency in Connecticut from 1851 to 1855, then again broken down by the habit of his life of repeated prostrations of health. But during these four years he had done invaluable service to the State in the establishment of the first State normal school, in drawing up a revised code of school laws, and especially in publishing "A History of the legislation of Connecticut respecting common schools up to 1838." After a visit to Europe, and the establishment of the American Journal of Education, he was again enlisted in public administration by a call in 1857 to the chancellorship of the university and agency of the board of regents of the normal-school fund of the State of Wisconsin, an invitation which he accepted in 1859 and held until 1861. Immediately at the close of the war, we find him again engaged in administrative duties, in 1866, as president of St. John's College in Maryland, from which he was called March 14, 1867, to the position of first Commissioner of Education in the newly established Department of Education, a position held for three years until March 15, 1870.

The subject of a national bureau of education appears during the progress of the civil war and immediately on its close in connection with the proceedings of the National Teachers' Association. It is not remarkable that the movement at that time should have been largely in the hands of the leading educators of the Northwest. Indeed, the first uprising of common-school interest at the close of the war was in the State of New York, the five original Western States, and the few States beyond the Mississippi, including Missouri. A large proportion of the most distinguished common-school and university men and women of that section had been called from the New England and the Middle States. Before the outbreak of hostilities Horace Mann had been called to his final work at Antioch College, Ohio, Henry Barnard to Wisconsin, Chancellor Tappan to Michigan, Dr. W. G. Eliot and Dr. Harris to Missouri, while the colleges and normal schools of the East were sending forth large numbers of workers in every department of western education. At the meeting of the National Association of Superintendents in Washington in 1866 Dr. E. E. White, then president of the Agricultural and Mechanical College of Indiana, delivered an address advocating the establishment of a national bureau of education, and he was appointed chairman of a committee of five to present the subject to Congress. The bill was carried through the House of Representatives largely by the influence of James A. Garfield, afterwards President of the United States. But it was a fit recognition, not only of the great general services rendered to education by Dr. Barnard in the past in all sections of the country, but also of his early conception of what afterwards became, first the "Department," and then the "Bureau" of Education, that he should be selected by President Andrew Johnson as the first occupant of the office of United States Commissioner.

The new bureau simply appeared in the statutes as a "department" for "the purpose of collecting such statistics and facts as shall show the condition and progress of education in the several States and Territories, and of diffusing such information * * * as shall aid the people of the United States in the establishment and maintenance of efficient school systems, and otherwise promote the cause of education throughout the country." The appropriation for the support of the commissioner and three assistants, at salaries of $4,000, $2,000, $1,800, and $1,600, amounted in all

to $9,400. The work of publication under Dr. Barnard included only an annual report with circulars, containing the investigations and recommendations of the commissioner. The commissioner of public buildings was authorized to find office room for this, then the smallest, "department" connected with the National Government.

No special charge of indifference to education in the abstract or personal narrowness need be imputed to Congress in thus fixing these limits. It would have been impossible then, as now, to have carried through either House of Congress a bill to charter even a bureau with four officials, and an annual income of less than $10,000, with any additional authority over education, or even with such as constitutionally inhered in the law-making power.

The first obstacle appeared in the attempt to do what was ordered in the statute and in a subsequent joint resolution, namely, to report accurately concerning the use made by the States of the school land grants of Congress, and to give a reliable account of the condition of education in the District of Columbia.

In the face of existing embarrassments it was evident that the "one thing needful" to be done at the beginning was to set the educational pitch of the little "department" after a fashion that would of itself challenge the attention of the school public at home and abroad, and especially awaken such an interest among the friends of the common school as would make it dangerous even to meddle with, and impossible to repeal, the statute establishing it.

There was one man in the United States who was peculiarly adapted to this grand work of public inspiration in a decisive and inviting way. That man, as has been stated, was the educator who, in a career of thirty years, had achieved a national and international reputation by the habit of fashioning everything connected with education into a grand and attractive shape. The greatest praise that could be given to the first U. S. Commissioner of Education was that he so magnified what could easily have been considered the most insignificant portion of the National Government in the view of educators at home and abroad as to make possible the work of his successors. This work was most effectually done by Dr. Barnard in his first report to Congress, covering the year 1867–68, a document of 856 closely printed pages.

The attempt to comply with the requirement to give an account of the disposition of the educational land grants made by Congress only revealed the fact of the impossibility of any immediate success. It was like a call to survey a highway through a wilderness, so dense that even the practiced woodsman would be hopelessly confused in groping after the tracks "blazed" by the first explorers. Some information concerning the original grants, and a tolerably correct account of the action of a portion of the States in accepting the latest of these grants (for agricultural and mechanical colleges in 1862), was all that could be reasonably expected at that time.

The Commissioner presented to Congress on the same date, viz, May 30, 1868, a special report on educational affairs in the District of Columbia, in compliance with a joint resolution dated March 29, 1867. In gathering data for this report he had called Mr. Franklin Hough, of New York, one of the best statistical experts of the time, to take a new census of the shifting crowd that the civil-war period had drifted into the capital city of the nation. Mr. Goodwin was invited to work out the most original and, perhaps, then the most important subject, the history of the schooling of the free colored people in the District of Columbia and of the new schools being established in the former slave States for the negroes.

In an extended supplementary report, prepared after Dr. Barnard's connection with the Bureau of Education ceased, this work was further carried out, in a volume concerning agricultural and technical education abroad. The important documents composing this report, which opened new prospects to the educational public

of the period, were printed as a separate volume of Dr. Barnard's American, now rechristened National, Journal of Education, at the author's expense, under a pledge that their publication should not involve the Government in additional expense.

The original report, in its attempt to cover the ground laid out by the statute, presented a great variety of interesting and valuable information, which even now makes this volume a standard work of historical importance. In its opening 25 pages the commissioner outlines his policy for the new bureau. Then follows a collection of circulars and documents issued by the commissioner, containing the history of the legislation establishing the Bureau of Education; farther on come several pages of information less known forty years ago than now, concerning the interest in public education by the fathers of the Republic. The original speech of the schoolmaster President, James A. Garfield, which carried the bill through the House of Representatives, finds a conspicuous place in this connection. All that could then be ascertained concerning the disposition of the educational land grants made by Congress was published; one new State, Minnesota, being selected as an object lesson of the most successful administration of this trust. Fifty pages are filled with a record of the constitutional provisions of the several States of the Union concerning public education, and nearly 200 pages with information concerning national and State legislation respecting colleges of agriculture and the mechanic arts; this section concluding with an account of certain of the institutions which became beneficiaries of the agricultural college land grant. Under the head "The State and Education" is republished the admirable address of Bishop George W. Doane, of New Jersey, to the people of that State in 1838, on the importance of universal education, supported by numerous quotations from eminent civic and educational authorities at home and abroad on the same topic. Then follows an extended republication of the facts and statistics of education in foreign countries, a subject at that time recently brought before the educational public of the country from observations by Stowe, Mann, Bache, Barnard, and many others. School architecture, a matter of first importance, especially to the new Western and Southern States, is treated with illustrative plans and cuts. A valuable essay on the normal school question, State and city, fills 200 additional pages of this crowded public document. The report is fitly closed by numerous quotations from the highest authorities in answer to the question, "What is education?"

As we become acquainted with the actual status of American educational affairs in the decade from 1860 to 1870, especially the comparatively demoralized condition of the common school in the Northern States from the strain of the civil war; its complication with partisan politics, sectarian religion, and the transformation of social conditions in the new West; the fact that no science of educational statistics then existed outside the theories of a few superior educators; that the sixteen Southern States were standing amid the ruins of all that had existed among them under the name of educational foundations; the violence of political parties, which virtually prolonged the war for ten years after the surrender of Lee at Appomattox; the meager income of the little department, working in narrow quarters and really not known at all to the majority of Congressmen—we can somewhat apprehend, but never quite understand, the obstacles to doing anything that beset the first Commissioner of Education. There was simply nothing to be done save to give the new Department of Education a place and a record as the one central agency of education endowed by the National Government.

Happily, a man who by the experience of a generation of illustrious labors was eminently qualified to do this work, at whatever sacrifice to himself, sat in the lonely chair of the U. S. Commissioner of Education. His work is evident from the mass of valuable material filling the two stout volumes sent forth during the three years of his occupancy.

When we examine these documents for their quality we find it difficult to decide what better message could have been set before the educational public of the country than the matter already described. There was the demonstration of the educational capabilities of the negro race from actual experience in the District of Columbia to encourage the education, in the common schools, of this "nation within a nation," now ten millions strong, but then with its foot just lifted up toward the threshold of republican civilization. The action of Congress in 1862 in making a new gift of public lands for the founding of agricultural and mechanical colleges for both races demanded such a publication of the European and home efforts in this radical new departure in the schooling of American youth as here appeared. The reluctance of great States and old cities toward making due provision for the training of their teachers was here confronted with a statement of the results of normal-school work not to be gainsaid. The thousands of school buildings with their fit furnishing waiting to be erected all over the land found here a partial republication of Dr. Barnard's original treatise on school architecture. The great South, on the brink of a new educational experiment, found ample encouragement in the thoroughgoing indorsement of the common-school system by the representative of the National Government, with additional description of the reformed methods of study, discipline, and school administration. That portion of the religious public which persisted in forcing the sharp distinction between "Christian" and "secular" schools was here shown that the American common school of the reformed type, perhaps better than any existing agency, was engaged in the training of young America into the genuine Christian ideals of character set forth nineteen centuries ago by the great Teacher of mankind in Palestine.

In short, it is not easy to say what could have been better done during the first three years of what finally became the National Bureau of Education within its original environments to hold up before the American people the grand ideals of universal education than to publish to a larger audience, under the authority of the National Government, much of the valuable information that hitherto had only been accessible to the limited number of the readers of the American Journal of Education.

There are times in the development of the higher life of a people, as of a man, when it seems that a friendly Providence sets narrow and insurmountable bounds and limits to human effort, which even discourage the noblest worker for better things; but, meanwhile, the sons and daughters of reform are held fast to some "one thing needful" to be done as a basis of all future progress. Such was the task of Dr. Henry Barnard as first United States Commissioner of Education.

III.—ESTABLISHMENT OF THE OFFICE OF THE COMMISSIONER OF EDUCATION OF THE UNITED STATES, AND HENRY BARNARD'S RELATION TO IT.[a]

BY WILLIAM T. HARRIS.

As members of the National Council of Education, we are assembled this evening to pay our respects to the memory of Dr. Henry Barnard. By common consent Dr. Barnard ranks as the second of the two great educational heroes which America has furnished. Other members of the council have prepared papers on his work as a critic of education, on his influence in the establishment of normal schools in the country, on his influence upon the schools in the Western States, and, finally, on his home life and his influence upon education in Rhode Island and Connecticut. To

[a] Reprinted from the Proceedings of the National Educational Association, 1901.

me has been assigned the preparation of a paper on the establishment of the office of United States Commissioner of Education, and Dr. Barnard's relation to it.

The discussions relating to the life of Henry Barnard must center about his great work in the preparation of the American Journal of Education, which may be said to have practically absorbed the energy of his life and to have used up his financial resources. Dr. Barnard makes, and will make, in our educational history a heroic figure through his devotion to this one great purpose, namely, the preparation of a series of volumes containing all that is solid and valuable in the history of education. I think it was said by Horace Mann, in reviewing his own labors, that the greatest need existing at the time when he left his work in Massachusetts was the publication in a convenient form of the literature of education. Certain it is that Henry Barnard was early impressed with the need for such a publication, and took it upon himself as his life work to prepare it and offer it to his countrymen.

I think that whatever he undertook in other lines of education—and the list of items in this field is certainly an extensive one—was felt by him to be subsidiary to this one great purpose of his life, namely, to enlighten the teachers and directors of education throughout the United States by giving them access to a complete record of the history of education in all ages and countries. When Congress in 1867 passed an act establishing a Bureau of Education, it was quite natural that the name of Henry Barnard should be mentioned to the President as the fit man to fill the position of Commissioner of Education. Dr. Barnard would naturally think of his fixed purpose to provide educational literature, and it would occur to him at once that here was an opportunity providentially thrown in his way to take up a national work which could best be promoted by the same labors that he had undertaken as a private individual and supported from his private fortune.

I think that in forecasting the most important lines of usefulness for the newly established Bureau of Education he foresaw that the preparation of volumes containing the history of educational experiments, the discussions of educational reformers, the statistics of national systems of schools, and the biographies of great teachers would furnish the best material for a long series of official reports. During the three years (from March 14, 1867, to March 15, 1870) in which he held the office he seems to have been maturing his plans for this line of work and awaiting opportunities in the form of resolutions by Congress calling for reports on special themes connected with the promotion of schools in the nation.

His first opportunity was furnished by the call on the part of Congress for a special report of the Commissioner of Education on the condition and improvement of public schools in the District of Columbia. This work was completed and submitted to the Senate in June, 1868, and again submitted to the House two years later, namely, in June, 1870, with additions. Three thousand copies of it were printed by the Government Printer in 1871. The act calling for it was passed March 29, 1867, fifteen days after his appointment as Commissioner. This book of 912 pages forms the chief monument of Dr. Barnard's career as Commissioner of Education. It begins with an introduction by himself; this is followed by a special report of Franklin B. Hough (31 pages), and next comes the chief article in the shape of a compilation of the statistics of the schools in the States and cities of the country (pp. 44–144.) There are five appendices. The first appendix gives an account of the proceedings in the establishment of a permanent seat of government in the United States. The second appendix contains a full discussion of the legal status of the colored population in the District of Columbia, Virginia, Maryland, Alabama, Arkansas, California, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, and Kentucky. The third appendix contains an article on illiteracy in the United States, prepared and illustrated by Dr. Edwin Leigh. The fourth appendix contains an account of art instruction in the country. The fifth appendix contains an account of public

instruction in the cities of Germany, and a reprint of the report of Fraser on American schools; a brief statement of the course of study in Chicago, Philadelphia, Cincinnati, New Haven, Springfield (Mass.), New Bedford, Boston, New York City, St. Louis, and Louisville; and a table showing the salaries of teachers in the several cities.

The second opportunity of Dr. Barnard came with a call of the House of Representatives for a report on technical instruction. The first copy of the manuscript, which was not complete, was prepared in pursuance of an order of the House approved January 19, 1870; but it was never printed. A so-called second edition was published in Dr. Barnard's American Journal of Education.

What Dr. Barnard called the second edition (on p. 9 of Vol. XXI of his American Journal of Education) is not a second printed edition, but only an edition revised from the manuscript which he had prepared in compliance with the order of the House of Representatives. He says distinctly:

> The resolution of the House * * * to print 5,000 copies for distribution * * * did not reach the Senate in time to be acted on before the close of the session. No subsequent action having been taken by the Senate, House, or Office of Education, to give circulation to a document which, etc., * * * the following edition is issued for subscribers to the American Journal of Education.

So far as the ordinary usage of the word "edition" is concerned, this is therefore the first and only edition of the work, and it appeared in July, 1871, as Volume XXI of the entire series of Barnard's Journal and as Volume V of what he called the "National Series." Dr. Barnard had evidently intended his "National Series" to contain his reports as Commissioner.

The contents of this work on technical instruction are as follows:

An introduction (pp. 17–32) on the progressive development of schools and practical courses of instruction in science.

Part I, systems and institutions of technical instruction (pp. 33–800): (1) Austria, (2) Baden, (3) Bavaria, (4) Brunswick, (5) German free cities, (6) Hanover, (7) Hesse-Cassel, (8) Hesse-Darmstadt, (9) Mecklenburg, (10) Nassau, (11) Oldenburg, (12) Prussia, (13) Saxony, (14) Saxe-Altenburg, (15) Saxe-Coburg-Gotha, (16) Saxe-Meiningen, (17) Saxe-Weimar, (18) Würtemberg, (19) France, (20) Belgium, (21) Holland, (22) Denmark, (23) Norway, (24) Sweden, (25) Russia, (26) Switzerland, (27) Italy, (28) Spain, (29) Portugal.

A prefatory note prefixed to the edition of this work in Volume XXI, 1870, throws more light upon the plans of Dr. Barnard with regard to the reports of the National Commissioner of Education. He states that in the original plan:

> This document [namely, report on technical instruction] would have constituted Part IV of a comprehensive survey of national education in different countries which he [Dr. Barnard] had commenced in 1854 in view of a thorough discussion of the condition and improvement of public instruction in the United States.

Parts I and II of the survey of national education in different countries were to treat of elementary and secondary education, as follows:

Part I, in the German States, and in Belgium, Holland, Denmark, France, Norway and Sweden, Russia, Turkey, Greece, Italy, Spain, Portugal, Great Britain.

Part II, in the American States, with a comparison of the systems and condition of public schools in the United States with those of more advanced States in Europe.

Part III, in universities, colleges, and other institutions of superior instruction.

Part IV, professional classes and special instruction, including schools of theology, law, medicine, teaching, agriculture, commerce, engineering, navigation, mines, technology, etc.

Part V, supplementary instruction, including libraries, lectures, evening schools, etc.

Part VI, societies, museums, and collections for the promotion of education, science, literature, and the arts.

In the prefatory note Dr. Barnard states that the information relating to systems of elementary and secondary instruction had been collected and prepared for publi-

cation in the office of the Department of Education, and that it would be communicated in a few days to the Secretary of the Interior, with a plan for its speedy completion and publication.

As we read over this conspectus we can not help seeing that Dr. Barnard had begun to form a noble ideal of the work of the Bureau of Education (or "Department of Education," as it was named in the first law of Congress which organized it).

Dr. Barnard sent in his resignation as Commissioner of Education, to take effect March 15, 1870. His successor, Gen. John Eaton, endeavored as far as possible to realize in the conduct of the office the ideas of Henry Barnard, and to incorporate in them such new features as recommended themselves from time to time. He began from the first to lay much stress upon the collection of statistics of the institutions and systems in the United States, showing their actual working results. This direction given to the report by General Eaton has been followed subsequently with somewhat increased emphasis. But in the administration of Col. N. H. R. Dawson, my predecessor, an attempt was made to return more nearly to the ideas of Dr. Barnard by the preparation and publication of a series of circulars of information giving a history of the founding and conduct of the colleges and universities in the several States. The publication of this series has continued to the present date and is now (in 1901) nearly completed.

At my request General Eaton has written out for me a brief account of Dr. Barnard's connection with the Bureau of Education, which I will now read:

WASHINGTON, D. C., *May 29, 1901.*

SIR: In reply to your request for "a brief account of Dr. Henry Barnard's connection with the Bureau of Education, mentioning the devices which he invented that came down to his successors," it is difficult for me to answer in full. My indebtedness to him personally was very great, but how much of this indebtedness came to me thru the Bureau, and how much thru his writings and other works previously, and from personal acquaintance with him, it would perhaps be impossible to relate. His publications I had studied, beginning with the period in which he was connected in one way or another with Dr. Absalom Peters, Superintendent Randall, Dr. Wilder, and Professor N. A. Calkins, in publishing the American Journal of Education and the College Review, in the fifties, before the College Review was dropped from the title. At different times also I enjoyed opportunities to study on the ground what I could see of his administration of State systems, both in Connecticut and in Rhode Island, and I knew how he had influenced educational efforts in Charleston, S. C., in New Orleans, and elsewhere in the South. Indeed, I knew that he had suggested to the Secretary of the Department the taking of illiteracy in the census when that item was first included. Altho I had been acquainted with the work of Horace Mann while a teacher in Massachusetts schools in different places, perhaps I knew more of that period of educational revival thru Dr. Barnard in which he had been so prominent. I had gathered what I could from his trip to Europe, and of his labors as president of the university at Madison, Wis., and at St. John's College at Annapolis. To me he seemed to be the most eminent man at the time in the country in the knowledge of educational literature, and I felt great misgivings when I was called by General Grant to become his successor.

While I was Commissioner of Education I had visited him as State superintendent of schools and had drawn upon him by letter. How much I had received from him in these various ways and how much came to me thru his efforts in the Bureau, I repeat, it will be difficult to state. As early as 1854 he had made a movement for the establishment of a central office for educational information.

In response to a petition from a body of educators, especially made up of State and city superintendents of schools, prepared and presented by Hon. E. E. White, thru General Garfield, Congress had passed an act, approved March 2, 1867, establishing an independent Department of Education, to be conducted after the manner of the Agricultural Department, as it was administered at that time, with a Commissioner at a salary of $4,000, and a group of clerks. Dr. Henry Barnard was appointed to organize the department, and entered most earnestly upon the work. In time he encountered opposition in Congress. At the end of two years the department was reduced from its independent position to that of a bureau in the Department of the Interior. One thousand dollars was taken from his salary, and the clerical force reduced to that of two of the lowest grade, with a salary of $1,200 each, making the

salary of the Commissioner what it has remained to July of this year, $3,000, from which time the amount is to be advanced to $3,500.

On handing me the keys of the office the Doctor informed me of his trying experience in securing quarters for the office; for it had been moved from place to place without his approval. There was belonging to it no library, excepting a small number of city and State reports. The publications in his possession, in a separate room, had come to him in his capacity as an editor and were his private property. Later, as appropriations warranted, with the approval of the Secretary of the Interior, these were purchased, their value having been estimated by the Librarian of Congress, A. R. Spofford, esq., and others. He spoke somewhat specially of the difficulty of securing the passage by Congress of a resolution to print, but indicated that he had made a report May 30, 1868, to the Senate, which in July, 1868, had been ordered printed by the Senate separately to the number of 3,000 copies. The same resolution of the Senate included authority to print a like number of copies of the special report on the District of Columbia, prepared by him on the order of the House of Representatives. He also indicated to me the substantial preparation for printing of other material. Immediately, with the hearty approval of the President and of the Secretary, Hon. J. D. Cox, previously obtained, I prepared a letter recommending its printing at once, which the Secretary forwarded in due form with his official recommendation. Later, in order to facilitate the use of these letters for urgency among Members of Congress, they were printed. A resolution to print this material passed the House, but did not pass the Senate, and thus our efforts failed; but the material prepared afterward appeared in the Journal, and the Bureau, as far as possible, aided in its distribution. Later the Bureau furnished Dr. Barnard copies of its reports to supply the place of one number of the Journal, thus giving his subscribers information of the condition of education in the United States.

This Journal, it may be remarked, is his monumental work. Its publication absorbed his fortune and impoverished his last years. Thus he made his greatest contribution to the Bureau and to other educational agencies. This failure to secure a resolution to print left the Doctor and myself both in a very trying situation. If the office could not print, it must fail. Who was so well prepared as my predecessor, by long experience in educational literature, to offer for print what would be valuable for the country? This compelled me to study the situation, and I found that there were those among the school superintendents of the country not ready to answer questions and furnish the necessary information which the department needed; others claimed that it would meddle with their rights. Some pointed out the difficulty arising from the fact that there was no uniformity of dates in the reports of State and city systems and of educational institutions; others still fell back upon the fact that there was no authority given the Bureau but that of using such information as was freely accorded to it.

The plan of work, as unfolded by reports, and especially by the carefully prepared circulars printed by Dr. Barnard, was most comprehensive and seemed to leave little to be desired. What could be done? I inquired extensively among those who appreciated the importance of the office. In one of the reports of the State of Kentucky there will be found a portion of a statistical report copied from material obtained from Dr. Barnard and gathered by him. It was incomplete, and therefore it did not satisfy his judgment to use it, but its publication thus furnished evidence of the struggle he had made to get information which would satisfy the demands of Congress.

Of his devices, tables of statistics, abbreviated texts, the issue of periodical circulars, and the methods which he proposed for furnishing information to persons and officers, I had enough knowledge to lead me to value them most highly.

As county and city teacher I had been trained in the tabulation of school reports; as city superintendent of schools I had devices for the tabulation of data to enable me to see the situation of each school in each week's experience; in order to study the relation of education to crime I had collated the statistics of jails in Ohio, and as State superintendent of schools I had been called upon to prepare a complete system of recording and reporting attendance and finance; yet I could not see how his devices and methods could be essentially improved in form. What could be better? I determined in some way to find a method of securing publication. I was sure the reports of the office would have been enriched if they could have included his personal reminiscences of the progress of educational efforts, his long and varied experience, together with his alert editorial watchfulness of this progress, as it may be termed, which made his memories extremely valuable. But I could not obtain them for publication by any offer of compensation by the office.

After a few months of experience and consultation, material for a circular was submitted to the Secretary of the Interior and its publication approved with a measure of hesitancy. Less than eight months after my appointment material for an annual

report was submitted and published, with all its imperfections, substantially within the lines and forms adopted by Dr. Barnard, and in accordance with the forms required by law.

Of his relation to the shaping of the work of the office I might say perhaps more specifically of his plans and devices: (1) He gave his utmost influence to the establishing of the bureau; (2) he sought to make reports which would be truly national; (3) he sought most carefully to devise valuable forms for statistics and abbreviated statements; (4) he began the publication of circulars giving information in regard to miscellaneous educational topics; (5) he enforced the national obligation to education; (6) he emphasized the need of universal education; (7) he would make the bureau enforce the universal relation of education to all the details of man's improvement; (8) he would make it understood that the laws of education in their relation to man's welfare were the same to all races; (9) he would draw illustrations of educational processes from all nations and peoples; (10) he sought to stimulate improvement by using both the historical and comparative methods, setting over against each other different years and different institutions and systems, by the publication of facts.

Indeed, it will be hardly possible for a national office of education to find anything appropriate to publish which is not included in the plans of Dr. Barnard as touching education and its relations.

In preparing this statement, I may add, I have consulted with two of the clerks, of whom one was a translator employed by Dr. Barnard, and also with Hon. George S. Boutwell, a surviving member of the committee of the House of Representatives which proposed the organization of the department. However unsatisfactory this statement, I can hardly make it more definite without quoting Dr. Barnard's language more at length.

Very respectfully, yours, JOHN EATON.

I have collected from the records of the Proceedings of the National Teachers' Association, of the National Superintendents' Association, and from other sources such items as relate to the conception of the National Bureau of Education, as follows:

Appendix A.—A letter addressed by the secretary of the American Institute of Instruction to John D. Philbrick, esq., January 4, 1851, informing him of his appointment as chairman of a committee to petition Congress to establish an educational department at Washington.

Appendix B.—(*a*) Extract from an address by Daniel Read, Proceedings of National Teachers' Association, at Cincinnati, 1858 (pp. 43, 44).

(*b*) 1859. Proceedings of National Teachers' Association, Washington, 1859. On motion of Rev. Dr. McJilton, it was resolved that a committee of three be appointed to memorialize Congress in relation to the establishment of a national agency, thru which the educational statistics of the several States and Territories may be collated and distributed thru the country.

(*c*) 1860. Extracts from an address by J. W. Bulkley, National Teachers' Association at Buffalo (p. 24), recommending that Congress be asked to inaugurate a department of national public instruction.

Appendix C.—(*a*) Proceedings of National Teachers' Association for 1863 (p. 46), showing that Prof. Noble Butler, of Kentucky, read an essay in 1863 recommending the establishment of a national bureau of education by the Federal Government.

(*b*) Proceedings for 1864 (p. 143), showing that Prof. S. H. White, of Illinois, read an essay on the same subject, and offered a series of resolutions.

(*c*) Proceedings for 1865 (p. 220). Prof. James S. Hart, of Philadelphia brought in resolutions recommending a memorial to the President and Congress for the establishment of such a bureau.

(*d*) Previous to the action of Professor Hart's resolution, Supt. A. J. Rickoff, of Cleveland, Ohio, read a paper on the subject showing the important services that such a bureau as was proposed would accomplish for education. (P. 223, same Proceedings, 1865.)

(*e*) The names of the persons appointed to memorialize the President and Congress are given in the volume of Proceedings of the National Teachers' Association published in 1866, and include members from ten different States.

Appendix D.—(*a*) A resolution adopted in 1866 to appoint a committee of five by the National Teachers' Association (Proceedings of 1865, pp. 305–307), to cooperate with the committee of the national superintendents.

(*b*) The report on the "National bureau of education" was read by Dr. E. E. White. Resolutions introduced by E. E. White, chairman (at the meeting of the National Association of Superintendents, 1866).

(*c*) Resolutions approving the Department of Education which had been established by the act of Congress in 1867, in pursuance of the recommendations of the committee above named, Dr. E. E. White, chairman.

Appendix E.—An address by Dr. E. E. White, commissioner of common schools of Ohio, February 7, 1866, on the subject of a National Bureau of Education.

Appendix F.—From Barnard's American Journal of Education, Volume XXI, 1870, page 5.

Prefatory note, on report on technical schools and special instruction in different countries, printed in answer to a call January 19, 1870, from the House of Representatives.

Appendix G.—Speech of James A. Garfield on a National Bureau of Education.

Appendix H.—Dr. Barnard's plan of a national agency for the United States to advance education (from Volume XXI of the Journal of Education).

Appendix I.—Dr. Barnard's plan, in 1862, for a new series of the American Journal of Education, published in Volume XXI.

Appendix J.—From Dr. Barnard's preface to his American Journal of Education for 1856, explaining the history of his plan.

APPENDIX A.

LYNN, *January 4, 1851.*

DEAR SIR: At a meeting of the officers of the American Institute the following vote was adopted:

"*Voted*, That a committee be appointed to consider the expediency of petitioning Congress with reference to the establishment of an educational department at Washington, and that the following gentlemen compose this committee, to wit: Messrs. J. D. Philbrick, Boston; S. Adams, Boston; D. P. Galloup, Salem; Jacon Batchelder, Lynn; T. Cushing, Jr., Boston."

The committee to report at the next meeting of the officers.

Yours truly,

JOHN BATCHELDER, *Recording Secretary.*

JOHN D. PHILBRICK, ESQ.,
Chairman of the Committee.

APPENDIX B.

(*a*) *1858.*—Extract from address by Daniel Read, Proceedings of National Teachers' Association at Cincinnati, 1858 (pp. 43, 44):

"The subject of a national bureau of education, to be connected with the Department of the Interior at Washington, has often been spoken of and urged as worthy of Congressional legislation. Hitherto it has not met with that favor which its friends believe it deserves, especially from that portion of our fellow-citizens who are jealous of anything like a centralization of power, and who believe that all legislative power upon the subject of education belongs to the several States. While we believe that there is a work which might be legitimately and more effectually performed by such a bureau, and that it has quite as much claim for Government support as that of agriculture, yet we believe that for the present at least the wisest and most effective policy is to rely upon the States and voluntary effort for the accomplishment of the noble objects proposed thereby. We believe, however, in common with some of the wisest and most considerate friends of education, that a special effort should be made to establish at our national metropolis a central and national educational agency, by the aid of which more efficiency and uniformity of character may be secured in the educational movements of our country, and a library of educational books and publications collected from every part of our own country and the world. Such an agency would greatly aid in giving a nationality of character abroad and furnish the means for the publication of a national journal of education, which would be the means of spreading educational intelligence to every part of the civilized world. To carry out such a grand central agency successfully would require funds and effort, which could readily be secured if the advantages resulting therefrom could be brought to the comprehension of the very many liberal-minded men of wealth in our country.

"This is a great and noble work, and it will require great and noble efforts to accomplish it, but do I overrate the ability and efficiency of this association when I say I believe it can accomplish it? Are there not men of means who would be willing to contribute largely for so noble a purpose? And are there not men of the required talent to carry forward the work? Would not our profession be the gainers in the end if we were to take the whole responsibility? If we should undertake it in real earnest, we could not fail to receive sympathy and aid.

"One feature of this agency is so important as to be needed at once. I refer to a national journal of education, which, without interfering with or in any measure

superseding the many State educational journals, will collect and embody such educational matter of general interest as its central location and access to the best means of information will bring within its reach. Every teacher should receive, read, and pay for the educational journal of his own State, if there is one, which, with a properly conducted national journal, would put him in possession of such information as every teacher ought to possess. There is a journal already established by private enterprise and in the hand of a gentleman who is in every way qualified to conduct it, and which, perhaps, might be made to serve our purpose in connection with the plan of its proprietor. I refer to the American Journal of Education, under the direction of Hon. H. Barnard, of Hartford, Conn. The invaluable matter contained in this journal and its high character, claim, not only the confidence, but the support, of every teacher and friend of education who would be well informed. To those who have carefully read it no commendation is needed, for it speaks for itself, as it affords such information as can be obtained nowhere else."

(*b*) *1859.*—Proceedings of National Teachers' Association, Washington, 1859. Mr. Valentine offered the following resolution (p. 4):

Resolved, That a committee of three be appointed to confer with the honorable the Secretary of the Interior to ascertain what additional statistics in relation to the subject of education are desirable and feasible to obtain by means of the approaching national census.

The resolution, having been discussed by Messrs. Valentine, McJilton, of Maryland; Smith, of Indiana; Z. Richards and Dennis, of the District of Columbia; and Roberts, of Pennsylvania, was adopted. The committee appointed under the above resolution was: Messrs. Read, of Wisconsin; McJilton, of Maryland, and Starke, of Missouri.

1859.—On motion of Rev. Dr. McJilton, it was resolved that a committee of three be appointed to memorialize Congress in relation to the establishment of a national agency through which the educational statistics of the several States and Territories may be employed and distributed through the country. The committee under this resolution was the same as under the preceding.

(*c*) *1860.*—From address by J. W. Bulkley, National Teachers' Association, at Buffalo (p. 24): "It is by creating and diffusing an intelligent public sentiment in relation to our cause, first in our own immediate locality, enlarging from day to day till the circumference shall embrace the circuit of the States individually and the still more glorious circle of the Union. With such a public sentiment as this we may with confidence of success present our cause to Congress and ask for the inauguration of a department of national public instruction. With such a department, having the necessary appliances and an intelligent and efficient head, we can hardly estimate its power and influence."

APPENDIX C.

(*a*) *1863.*—(Proceedings, p. 46.) "A national bureau of education should be established by the Federal Government." Assigned to Noble Butler, Kentucky, for discussion at next meeting.

(*b*) *1864.*—(Proceedings, p. 143.) Prof. S. H. White read an essay entitled "A national bureau of education," and offered the following resolutions:

Resolved, That, in the opinion of this association, the educational interests of the country would be greatly advanced by the establishment of a national bureau of education.

Resolved, That a committee of three be appointed, whose duty it shall be to secure, if possible, the establishment of such an agency at Washington during the next session of Congress, and also to report the results of their action at the next meeting of this association, with their views upon the subject of "A national board of education and the appointment of a secretary of public instruction."

Mr. Z. Richards moved their adoption, and after a discussion by Messrs. Richards and Barnard they were adopted, and Messrs. Barnard, Richards, and White were appointed the committee.

(*c*) *1865.*—(Proceedings, p. 220.) Prof. J. S. Hart, from committee on President's address, read a report, accompanied by the following resolution:

Resolved, That a memorial be prepared to be addressed to the President of the United States and to the two Houses of Congress, expressing the strong convictions of this association in regard to the necessity of having in every State a system of public schools for all classes, in order to the perpetuity and the right working of our political system, and expressing also the wish and the hope that the General Government will do whatever it can rightfully and properly toward inducing the establishment of such a system of common schools in those States where they do not exist.

Resolved, That this association commend to the favorable consideration of the General Government the organization of a bureau of education for the purpose of collecting and publishing educational statistics and of making suggestions for the advancement of popular education in the several States.

Resolved, That a committee of five be appointed to carry the foregoing resolutions into effect, and that the president of the association be chairman of said committee.

Laid on the table until after the reading of a paper on the same subject by Prof. A. J. Rickoff.

(*d*) *1865.*—(Proceedings, p. 223.) The resolutions of Professor Hart, of New Jersey, were taken from the table, when Mr. Rickoff offered the following additional resolutions:

Resolved, That the committee above provided for be instructed to appoint one of their number, or such other person as they may deem best, to devote his entire time, so long as to them may seem desirable, in such labor as may be necessary for carrying out the wishes of the association as expressed in the above resolutions.

Resolved, That a committee of three from each State represented in the association be appointed, whose duty it shall be to circulate petitions among the people of their respective States, praying Congress to establish a department of education, and to collect funds for the payment of their own expenses for printing and for the support of the agent of the committee on memorial.

The resolutions were discussed by Prof. O. N. Hartshorn, of Ohio; W. D. Henkle, of Ohio; W. E. Crosby, of Ohio, and Douthett, of Pennsylvania. The amendment was agreed to, and the resolutions as amended adopted.

1865.—(Same Proceedings, p. 227.) At the time of going to press the following members have been named [on the committee on educational bureau]:

Massachusetts.—Supt. J. D. Philbrick, Boston; C. Goodwin Clark, Boston; N. T. Allen, West Newton.
Rhode Island.—William A. Mowry, Providence; David M. Hoyt, Providence; Emory Lyons, Providence.
New York.—Dr. James Cruikshank, Albany; Supt. J. W. Bulkley, Brooklyn; Supt. E. A. Sheldon, Oswego.
Pennsylvania.—W. Henry Packer, Philadelphia; S. D. Ingram, Harrisburg; S. B. Thompson, Edinboro.
Maryland.—Dr. L. Steiner, Frederick; Prof. A. Hollingshead, Baltimore; Dr. S. A. Harrison, Easton.
Ohio.—Hon. E. E. White, Columbus; W. E. Crosby, Cincinnati; Prof. W. D. Henkle, Salem.
Michigan.—Hon. J. M. Gregory, Kalamazoo; Hon. O. S. Hosford, State superintendent; Prof. A. S. Welch, Ypsilanti.
Missouri.—Supt. Ira Divoll, St. Louis; C. S. Pennell, St. Louis; C. F. Childs, St. Louis.
Iowa.—Hon. Oran Faville, Des Moines; Gen. B. A. Wiltz, Dubuque; Rev. S. Williams, Keokuk.
Oregon.—Henry Cummins, Salem; A. C. Gibbs and T. M. Gatch, Salem.

(*e*) *1865.*—(Proceedings, pp. 305–307. From address of A. J. Rickoff on a "National bureau of education.") "Under the providence of God we have blindly fought for the freedom of the slave, and our next great task must be to educate him. The whole work should be under the direction of a commissioner of education, a man who should be qualified to organize and direct the energies of the whole people, not alone with reference to present emergency, and whose duty it should be to elaborate the best possible scheme of education for the South, which the Government should see carried out. This is not a missionary society having agents and teachers in the field. That ground is taken up by another association. But we can and we ought to advise as to the course to be taken by the Government in the first stage of the affair, and I repeat it that the very first and the most important of all recommendations to be made is that Congress, at the very next session, should establish an educational department and authorize the President to appint a commissioner of education. But it is not only to meet the present state of affairs, in the only way in which it can properly be met, that I make this proposition. There is no plan by which the National Government can promote the cause of education in the North and in the South so easily as by the appointment of a national commissioner of education. We shall presently see that the interest to which we appeal has always been exercised by the legislative and executive departments at Washington. We propose no radical innovation, nor is the proposition new. It has been made again and again in State and national associations, and has, I believe, always received their sanction, and I shall make no argument in its favor further than the one I have already urged, except to state somewhat precisely the general duties to which a commissioner of education should devote his energies. But it will be seen that every specification is an argument.

"He should make himself thoroughly acquainted with the public-school system of each State as to its general and local officers and their relative duties; the different classes of public schools; the plans of taxation resorted to for public purposes, and the amounts raised thereby; the amount and nature of the investment of all school funds the interest of which is applied to school purposes, and the amount derived from all other sources. He should study the school statistics of the respective States, noting particularly, wherever it is possible to obtain such information, the average length of time the common schools have been kept open, the number of children entered, the average number belonging and average daily attendance, the number of children of each age attending school, and, so far as possible, the nature of the attendance as to the length of time children remain in the schools and the degree of regularity in attendance while enrolled, and of those matters which in their nature are variable he should make report on or before January 1 of each year, and of those matters which are more permanent he should make separate report as often as once in four years on the January preceding the expiration of each Presidential term.

"He should, as far as possible, ascertain the number of chartered institutions of learning of every grade, their endowments, courses of study, number of students, charges for instruction, etc.; the number and character of all societies for the diffusion of useful knowledge, and the plans adopted for effecting their objects, and the number of publications of different kinds made thereby; the number and character of societies of adults formed for mutual improvement, and the number of members participating in the advantages thereof; and these facts, and whatever other information he can gather from any and all sources whatsoever bearing upon the educational facilities in the respective States, he should embody in his annual report.

"He should be required to make himself acquainted, as well as possible, with the school systems of foreign countries; their means of support; their organization; the courses of study pursued in primary, grammar, and high schools, academies, seminaries, normal schools, gymnasia, colleges, universities, etc., for the education of the young; the means of support, organization, and plans of procedure of societies established for mutual improvement, and societies and institutions of all kinds for the increase and diffusion of knowledge among men, whether literary, scientific, artistic, or industrial; also of all institutions established for deaf, mute, blind, and imbecile children and adults, as well as schools and institutions of all classes designed for the care of orphan and destitute children, or for the reformation of juvenile vagrants and offenders against law; and of all special schools, not above named, for the improvement of their members in the various arts and professions of life.

"He should make it a special object to procure and keep on file for ready and convenient use all educational reports, both general and local, of all authorities engaged in the management and instruction of any and all of the institutions above named. He should establish an educational library which should contain not only these reports, but all valuable works and periodicals treating on educational subjects, especially those published in the English, German, and French languages, and of those which would be likely to prove most serviceable in this country he should make translations, or cause the same to be made, and print them in his annual reports. He should procure, and preserve for examination by teachers and school officers, specimens of all maps, charts, diagrams, and pictured representations of all kinds whatsoever used in the processes of instruction, all kinds of primary-school apparatus, all kinds of school furniture used in this or foreign countries, and finally:

"In his annual reports he should embrace all information which might seem valuable to school officers and teachers of all grades, and to officers and members of all kinds of scientific and literary institutions and associations; and he should especially direct attention to all those features of institutions at home and abroad which might seem to him best adapted for general introduction throughout the United States, and particularly should he communicate such information as would be likely to encourage the formation of societies for enlightened improvement among all classes of our population."

APPENDIX D.

(*a*) *1866.*—(Proceedings at Indianapolis, National Teachers' Association, p. 10.) A resolution was adopted to appoint a committee of five to cooperate with the committee of the national superintendents in urging upon the Senate of the United States the passage of the bill of the House of Representatives to establish the department of education. The committee appointed was Messrs. Z. Richards, James Cruikshank, A. C. Shortridge, J. S. Hart, and R. Coburn.

(*b*) (Proceedings of National Association of Superintendents, Indianapolis, 1866, pp. 74–76.) The committee's report on a national bureau of education was read by Mr. E. E. White, chairman, and the following resolutions, offered by G. W. Hoss, were adopted:

Whereas an approved bill looking to the establishment of a national bureau of education has passed the House of Representatives in Congress: Therefore,

Resolved, That the thanks of this National Superintendents' Association are due, and are hereby tendered, to that body for its liberal and enlightened action on behalf of general education.

Resolved, That this body appoint a committee of five to properly bring the House bill to the attention of the United States Senate and secure its early passage by that body.

The committee appointed was Messrs. E. E. White, O. Hosford, D. Stevenson, and J. W. Bulkley.

(*c*) *1868.*—(Proceedings of National Teachers' Association, pp. 36, 37.) The United States Department of Education was represented by Mr. Z. Richards, an officer in the Department at Washington. After the address of Mr. Z. Richards, Mr. E. E. White, of Ohio, offered the following resolution:

Resolved, That this association approves of the action of the Congress of the United States in organizing a national department of education, and the continuance and liberal support of such a department is most earnestly recommended.

APPENDIX E.

NATIONAL BUREAU OF EDUCATION.[a]

[From Barnard's Journal of Education, Vol. XVI, 1866, pp. 177-186.]

Universal education, next to universal liberty, is a matter of deep national concern. The one distinctive, exhaustive idea of a democratic government is that it is a government by the people and for the people, i. e., by the whole people and for the whole people. A democracy is, in other words, but an organized people. They constitute the State. Its constitution and laws are but their recorded will, and all governmental power emanates from and centers in them.

In such a government, in its pure form, sovereignty is a universal right, to be exercised by all for the happiness and well-being of all. It is a right that can neither be denied nor restricted except by usurpation; and this is true whether the usurping power is one man or twenty millions of men. The right of sovereignty may be forfeited by crime or by its treasonable exercise, but it is in no sense an accident of birth or condition.

When the exercise of sovereignty by the people is both universal and for the welfare of all, a democracy is the perfection of human government; but to the extent that such right is withheld from the people or is wrongfully exercised by them, just to that extent are democratic institutions imperfect and a failure. Hence the capability of the people to exercise sovereignty for the general welfare is a fundamental and vital condition of republican institutions. When such capability does not exist, the universal exercise of sovereignty is a condition of national weakness, if not of peril. I am thus led to inquire what this capability includes and what are the essential conditions of its existence.

It clearly requires the necessary intelligence to determine what will best subserve the interests of all, and the degree of this intelligence must not only be sufficient for self-government on the part of individuals and individual communities, but the people, as a whole, must be able to weigh and decide upon questions which involve national interests. Hence the higher the civilization embodied, the wider the extent of territory embraced, and the more various the pursuits and physical conditions of the people, the higher the degree of intelligence required for the right exercise of sovereignty.

But intelligence is not enough. Sovereignty is to be exercised for the happiness and well-being of all, and this involves the moral capacity to act in accordance with the dictates of intelligence. The second great law of civil liberty, as well as of religion, is: "Thou shalt love thy neighbor as thyself." Wherever the moral sense of the people is too feeble to impel the public will to regard the general welfare, democracy becomes the livery of despotism. To general intelligence we must, therefore, add public virtue as one of the essential conditions of the right exercise of sovereignty by the people.

In his centennial address at Plymouth, in 1820, Webster assigned three fundamental conditions as essential for the maintenance of republican institutions, namely, universal education, universal religious training, and the general division of landed property. The same conditions are laid down by De Tocqueville and other writers upon democratic governments.

If we turn to the pages of history, we shall find abundant confirmation of these views. We shall certainly search in vain for a single example where an ignorant and corrupt people have exercised sovereign power wisely and justly, or have even retained such power for any length of time. In all the past, wherever the intellectual and moral condition of the people has been low, there civil liberty has been lost. Universal liberty without universal intelligence has ever been the sport of civil tempests. Stolid ignorance and moral degradation tread above the grave of civil liberty all along the shores of the Mediterranean; but free government still abides with the intelligent and virtuous descendants of Tell, among the mountains of Switzerland—that diamond of liberty, set by a divine hand in the very center of European despotism! Passing to the New World, I need only to point to Mexico, where civil liberty lies prostrate and helpless beneath the crossed bayonets of two European despotisms! In a word, both reason and history compel the conclusion that republican institutions can rest upon no other basis than intelligence and virtue, and that these must pervade all heads and all hearts.

But general intelligence and public virtue are not the spontaneous fruits of civil liberty, although it is favorable to their development. As a necessary condition of

[a] A paper read before the National Association of School Superintendents, at Washington, D. C., February 7, 1866, by E. E. White, commissioner of common schools of Ohio.

their existence, they must be assiduously cultivated and diffused among the people. No human agency but the common school is capable of accomplishing this great work. Aided and vitalized by religion, it is the only sure foundation of the sovereignty of the people—the strength and shield of liberty.

This great fact was well understood by the founders of the American Republic. They sought to found free institutions, not upon the quicksands of human instinct and passion, but upon the abiding rock of universal education and religious training. This was the grandest of all their innovations upon the moss-grown ideas of the Old World.

But the idea that education must be coextensive with sovereignty was not original with our fathers. This has been the favorite doctrine of aristocracy the world over. Wherever the heel of despotism rests upon the neck of humanity, the ignorance of the oppressed has been urged as the justification of the oppressor. Despotism clamors for a restricted education, because she maintains a restricted sovereignty. The former is made just as wide as the latter.

Nor is the idea of universal sovereignty distinctly and originally American. Democracy had drawn her sword to give the people political power long before the *Mayflower* cradled the new Republic, and had won the prize, too, but only to see it turn to ashes in their hands. The grand, distinctive, original idea of the American Republic is the union of these two principles, by making the one the basis of the other. With matchless wisdom our fathers joined liberty and learning in a perpetual and holy alliance, binding the latter to bless every child with instruction which the former invests with the rights and duties of citizenship. They made education and sovereignty coextensive by making both universal. Here is the grandest conception of civil history, the hope and strength of civil liberty. And yet how few the successive steps by which our fathers passed from a conception of this idea to its practical embodiment! Truly they must have builded better than they knew.

Who can measure the results which the union of these two principles has already accomplished? When the sources of the nation's wonderful vitality and power during the great civil conflict through which it has just passed shall be determined, then first and foremost will stand the common school. The civil war, which was a gigantic conspiracy against democratic institutions, found a people trained to comprehension of their duties and interests, with hearts to dare and hands to strike in their defense. The flame of civil liberty now burns with increasing brightness and new splendor, because our fathers, like the wise virgins, put into the lamp of free government the exhaustless oil of universal education.

I am thus brought back to the proposition with which I started, namely, that universal education is in this country a matter of deep national concern. Our experiment of republican institutions is not upon the petty scale of a single municipality or State, but it covers half a continent and embraces peoples of widely diverse interests and conditions, but who are to remain "one and inseparable." Every condition of our perpetuity and progress as a nation adds emphasis to the remark of Montesquieu, that it is in a republican government that the whole power of education is required. The one imperative necessity of this nation is that the public school be planted on every square mile of its peopled territory, and that the instruction imparted therein be carried to the highest point of efficiency.

But what can the General Government do to aid in securing this object? In view of the startling fact that the great body of the people that occupy nearly one-half of the national territory are largely destitute of the means of education, this inquiry has the deepest significance.

Three plans have been suggested:

1. The Government may establish and maintain throughout its territory a national system of education.

2. It may by Congressional legislation enforce the maintenance of a public-school system upon every State.

3. It may by conditional appropriations and by a system of general inspection and encouragement through the agency of a national bureau of education induce each State to maintain an efficient school system.

Notwithstanding the cogency of the argument which may be adduced in favor of the first plan suggested, it is, in my judgment, too wide a departure from the settled educational policy of the country to be seriously entertained. Such a system would doubtless prove highly advantageous in a portion of the country, but it would be very disastrous in those States that have already carried the work of general education to a high point. Besides, all experience shows, and I regard it a law of school progress, that the nearer the responsibility of maintaining schools is brought to those directly benefited by them, the greater the vital power and efficiency of school systems.

These remarks do not apply to the education of the freedmen. On the contrary, I believe it is the sacred and bounden duty of the General Government to undertake, for a time, the education of the emancipated millions who through the war have received back their birthrights of liberty and manhood. Deprived of the uplifting power of education they can but become idle and dissolute, and sink, if possible, still deeper in degradation and misery. Besides, the faith of the nation is solemnly pledged for the protection of these people in all their rights as freemen. But there is no protection so secure as the power of self-protection. Until the freedmen have their liberties in their own keeping they are not really free. They are now in a condition of abject ignorance, homeless and landless, subject to the heartless exactions of capital, and are the helpless victims of class prejudice and persecution. No protection of the Government that fails to bring them intelligence can save them from impending peril. No standing army can so effectually maintain the plighted faith of the Government toward these people as an army of schoolmasters. Let bayonets protect, if need be, the schoolhouse of the freedmen, and they will soon take care of their rights and liberties. They will do more. As free, self-directing, self-supporting laborers, they will bring prosperity again to the South and make her war-ravaged fields smile with plenty.

To the second plan suggested there are manifestly serious objections. The imposition of a system of public instruction upon the several States by compulsory legislation can be justified only on the ground of public necessity in a great national crisis. And I am free to admit that so great is the necessity for the establishment of public schools throughout the South that even such a measure would be imperatively demanded if no other course to attain the same end were practicable.

The third plan is clearly in harmony with the settled educational policy of the country. It will neither cripple nor endanger any part of our educational system, and it calls for the assumption of no questionable power by the General Government. What is proposed is that the Government shall undertake to do efficiently what it has in the past always done generously through its munificent grants of land for the encouragement of education.

Instead of unconditional grants of land or appropriations of money such assistance should be proffered to the several States on condition that they reach a prescribed standard in the maintenance of free schools, and, further, that a specified portion of such grants or appropriations be applied to the support of institutions for the professional training of teachers.

The fact that a State could by maintaining an efficient school system receive from the National Government, say, from $100,000 to $500,000 annually would certainly prove a potent influence in securing such action. I could, if necessary, fortify this statement by referring to experiments of the kind in other countries and also in several of the States of the Union where State appropriations for school purposes are conditioned on a compliance by the local school authorities with certain stipulations. This policy has uniformly, so far as my information goes, been successful. Communities indifferent to the advantages of free schools, if not prejudiced against them, have, with this assistance to their judgment, come to a wiser conclusion respecting their value. There is no eye salve so efficacious in removing mental blindness as self-interest, and instances of States permitting the bounties of the Government to pass by them have, at least, not been frequent. I am confident that the adoption of the plan suggested would speedily secure a common-school system in every State now destitute of such a system, and that it would lift up the schools, as it were, bodily in those States in which they are indifferently sustained. The impetus which it would give to the professional training of teachers throughout the country would be of incalculable value as a means of elevating and vitalizing school instruction.

There is one other consideration worthy of mention just here. The sparsely settled States of the far West and South need the assistance of the General Government in the establishment of systems of education commensurate with their growing necessity—a fact the Government has always recognized. There is not a State west of the Alleghenies that is not greatly indebted to the munificent grants of land made by Congress for the early establishment of its school system. Nor have common schools alone been aided. Several State universities are maintained largely from the proceeds of such grants. It is estimated that if the land grants of Congress for educational purposes had been properly managed they would now present an aggregate educational fund of about $500,000,000.

On account of the unfortunate land-holding system of the South, and the consequent sparseness of population, it would be difficult to sustain an efficient general school system there, even in times of prosperity. A proper division of landed property is as essential to universal education as it is to democratic institutions. At all events,

in the present financial condition of the South the assistance of the Government in establishing public schools is needed, and clearly that assistance will prove the best which is conditional.

As a means of paying the national debt I know of no one measure fuller of promise than the increase and diffusion of intelligence among the mass of the people. The expenditure of $5,000,000 to $10,000,000 a year for this purpose would be made good by almost immediate returns to the Post-Office and Treasury departments. The unschooled millions of the South write few letters, take few papers, and pay small taxes on incomes. There are no mines in this country so productive of wealth as the mind of the country. Educated labor is the true alchemy that can turn everything it touches into gold.

There is one other agency forming an essential part of the third plan proposed which I hasten to consider. I allude to a national bureau of education, corresponding in many of its features to the national Department of Agriculture. The interests of education would unquestionably be greatly promoted by the organization of such a bureau at the present time. It would render needed assistance in the establishment of school systems where they do not now exist and prove a potent means for improving and vitalizing existing systems. I conceive it to be possible for a national bureau of education to be so managed as to well-nigh revolutionize school instruction in this country, and this too without its being invested with any official control of the school authorities in the several States. This it could accomplish:

1. By securing greater uniformity and accuracy in school statistics and so translating and interpreting them that they may be more widely available and reliable as educational tests and measures. The present great diversity in the modes of collecting school statistics in the several States makes it almost impossible to use them for the purpose of comparing the results attained.

2. By bringing together the results of school systems in different communities, States, and nations and determining their comparative value, not simply by measuring their length and breadth as with a yardstick, but by separating the pure gold of education from the dross as in a crucible.

3. By collecting the results of all important experiments in new or special methods of instruction and management and making them the common property of the school officers and teachers of the country.

4. By diffusing among the people much-needed information respecting the school laws of the different States, the various modes of providing and disbursing school funds, the different classes of school officers employed and their relative duties, the qualifications demanded of teachers and the agencies provided for their special training, the best methods of classifying and grading schools, improved plans for schoolhouses, together with modes of heating and ventilization, etc., information now obtained only by a few persons and at great expense, but which is of the highest value to all intrusted with the management of schools.

5. By aiding communities and States in the organization of school systems in which oft-exploded errors shall be avoided and vital agencies and well-tried improvements be included.

6. By the general diffusion of correct ideas respecting the value of education as a quickener of intellectual activities, as a moral renovator, as a multiplier of industry and a consequent producer of wealth, and, finally, as the strength and shield of free institutions.

It is not possible to measure the influence which the faithful performance of these duties would exert upon the cause of education in this country, and few persons who have not been intrusted with the management of school systems can fully realize how widespread and urgent is the demand for such assistance. Indeed, the very existence of the association I now address is of itself cogent proof of a demand for a national channel of communication between the school systems of the different States. Millions of dollars have been thrown away in fruitless experiments or stolid plodding for the want of just such information as a national bureau could make accessible to the people.

We have a strong confirmation of these views in the potent influence which Horace Mann exerted upon the schools of this country—notwithstanding his official reports had necessarily a limited circulation outside of his own State. Who can measure the influence which he would have exerted at the head of a national bureau of education? How great the necessity for such a vital power to flow down from the General Government, at the present time, permeating and vitalizing all parts of our school system![a]

[a] Mr. Mann may have originated few measures of educational progress, but he gave wings, as well as vital power, to the measures and agencies of others.

We have also a very forcible illustration of the same position in the powerful influence exerted upon English elementary schools by the national committee of council of education while James Ray Shuttleworth was its secretary, and also subsequently.

But in determining the probable efficiency and value of a national bureau of education, there is a fundamental law, running through the entire history of educational progress, which must not be overlooked. Idolatry has never been self-moved to cast its idols to the moles and the bats; nor has benighted paganism ever lifted itself into the light of a beneficent civilization. The impulse to such progress always comes from without and above. The civilization of the world has a fountain head. The same law holds true in education. An ignorant community has no inward impulse to lead it to educate itself. Just where education is most needed there it is always least appreciated and valued. The half savage population of Ban de la Roche had for centuries hugged their barbarism when the good Oberlin went among them. Berkeley, a colonial governor of Virginia, thanked God that there were no free schools in his colony, and only twice twelve months ago the slave shamble instead of the schoolhouse still stood at the crossroads of the Old Dominion. The demand for education is always awakened by external influences and agencies. Hence, Adam Smith and other writers on political economy expressly except education from the operation of the general law of supply and demand.

This law has a wide application in school affairs. Communities that have, indeed, some general appreciation of education rest satisfied with very indifferent schools until some influence supplies the impulse to reform and progress. No one obstacle lies so directly across the track of school advancement as the idea entertained by nearly every community that it has attained unsurpassed excellence in education; and this self-flattery often exists where the work of reform needs to be most earnestly undertaken. A national bureau would hold up to many school systems a mirror which would reveal attainable results and desirable changes.

I remark, finally, that the creation of a national bureau of education would be a practical recognition by the Government of the value and necessity of universal education as a means of perpetuating free institutions. It would impart to the common-school cause a dignity and a character which would surely widen its influence and enhance its efficiency. It would be an argument for the education of the people which would be felt throughout the country.

The highest success of the bureau will, of course, depend much upon the manner in which it is officered. Instead of being made a burrow for seedy politicians, it must be made the center of the ripest experience and the most eminent attainments to be found among the educators of the country. The work of such a bureau must be directed by a mind that comprehends the aim and scope of education—its philosophy, its history, its processes, its practical details.

But we need to go further than this. Commissions similar to the great commissions that have been sitting successively in Great Britain should be appointed by Congress to examine respectively into our systems of collegiate education, our professional or special schools, and the instruction of our public schools. Such investigations would exert a powerful influence upon our educational systems which have as yet neither crystalized nor fossilized. Now is the opportune time to introduce changes and modifications.

Let it be remembered that the next great problem of republican institutions is the uplifting of each successive generation of Americans to a true comprehension of their high duties and responsibilities. In this sublime work society, the state, and the nation must be conjoined. Around each child born into American liberty they must stand as a triple guaranty that the boon of education shall not be denied.

APPENDIX F.

[From Barnard's American Journal of Education, Vol. XXI, 1870, p. 5.]

PREFATORY NOTE.

The following Report on Technical Schools, and Special Instruction Generally, in Different Countries, was printed in its present form by the subscriber in pursuance of a call, January 19, 1870, by the House of Representatives on the Commissioner of Education for information on the subject. It was not completed so as to be communicated to Congress at the time (March 15) his connection with the office ceased, and has been brought to its present still incomplete condition at the special request of members of the House Committee on Education and Labor, at whose instance the call was originally made. This portion (pp. 33–786) is now published under the order of the House to print, in advance of the completion of the chapters relating to

Great Britain and the United States, at the suggestion of the Commissioner of Education, to meet the calls on him for information respecting this class of institutions.

As originally planned, this document would have constituted a portion (Part IV) of a comprehensive survey of national education in different countries, which the undersigned had commenced in 1854, in view of a thorough discussion of the condition and improvement of public instruction in the United States.

This survey would embrace:

Parts I and II. Elementary and secondary education.
Vol. I. The German States..
Vol. II. Switzerland, France, Belgium, Holland, Denmark, Norway and Sweden, Russia, Turkey, Greece, Italy, Spain, Portugal, Great Britain.
Vol. III. The American States—with a comparison of the system and condition of public schools in the United States with those of the more advanced States of Europe.
Part III. Universities, colleges, and other institutions of superior instruction.
Part IV. Professional, class, and special instruction (schools of theology, law, medicine, teaching, agriculture, commerce, engineering, navigation, mines, technology, etc.).
Part V. Supplementary instruction (libraries, lectures, evening schools, etc.).
Part VI. Societies, museums, and collections for the promotion of education, science, literature, and the arts.

So far as the information relating to systems of elementary and secondary instruction was collected and prepared for publication in the Department or Office of Education, it will be communicated in a few days to the Secretary of the Interior, with a plan for its speedy completion and publication.

HENRY BARNARD.

WASHINGTON, *June 29, 1870.*

APPENDIX G.

EDUCATION—A NATIONAL INTEREST.

Speech of James A. Garfield, of Ohio, in the House of Representatives, June 8, 1866, on a bill "To establish a national bureau of education," reported by the Select Committee (a) *on the Memorial of the National Association of School Superintendents.*

(At the conclusion of a general discussion of the bill, the previous question upon the bill and the pending amendments was demanded and seconded, and the main question ordered.)

Mr. Garfield spoke as follows:

"I did intend to make a somewhat elaborate statement of the reasons why the select committee recommended the passage of this bill, but I know the anxiety that many gentlemen feel to have this debate concluded and to allow the private bills now on the Calendar and set for this day to be disposed of, and to complete as soon as possible the work of this session. I will therefore abandon my original purpose and restrict myself to a brief statement of a few leading points in the argument, and leave the decision with the House. I hope this waiving of a full discussion of the bill will not be construed into a confession that it is inferior in importance to any measure before the House, for I know of none that has a nobler object or that more vitally affects the future of this nation.

"I first ask the House to consider the magnitude of the interests involved in this bill. The very attempt to discover the amount of pecuniary and personal interest we have in our schools shows the necessity of such a law as is here proposed. I have searched in vain for any complete or reliable statistics showing the educational condition of the whole country. The estimates I have made are gathered from various sources and can only be approximately correct. I am satisfied, however, that they are far below the truth.

"Even by the incomplete and imperfect educational statistics of the Census Bureau, it appears that in 1860 there were in the United States 115,224 common schools, 500,000 school officers, 150,241 teachers, and 5,477,037 scholars, thus showing that more than six millions of the people of the United States are directly engaged in the work of education.

"Not only has this large proportion of our population been thus engaged, but the Congress of the United States has given 53,000,000 acres of public lands to 14 States and Territories of the Union for the support of schools. In the old ordinance of 1785 it was provided that one section of every township—one thirty-sixth of all the public lands of the United States—should be set apart and held forever sacred to the support of the schools of the country. In the ordinance of 1787 it was declared that 'religion, morality, and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall forever be encouraged.'

(a) The committee consisted of Garfield, of Ohio; Patterson, of New Hampshire; Boutwell, of Massachusetts; Donnelly, of Minnesota; Moulton, of Illinois; Goodyear, of New York, and Randall, of Pennsylvania.

"It is estimated that at least $50,000,000 have been given in the United States by private individuals for the support of schools. We have thus an interest, even pecuniarily considered, hardly second to any other. We have tolerably complete school statistics from only 17 States of the Union.

"Our Congressional Library contains no educational reports whatever from the remaining 19. In those 17 States there are 90,835 schools, 190,000 teachers, 5,107,285 pupils, and $34,000,000 annually appropriated by the legislatures for the support and maintenance of common schools. Notwithstanding the great expenditures entailed upon them during five years of war, they raised by taxation $34,000,000 annually for the support of common schools. In several States of the Union more than 50 per cent of all the tax imposed for State purposes is for the support of common schools. And yet gentlemen are impatient because we wish to occupy a short time in considering this bill.

"I will not trouble the House by repeating commonplaces so familiar to every gentleman here, as that our system of government is based upon the intelligence of the people. But I wish to suggest that there never has been a time when all our educational forces should be in such perfect activity as at the present day.

"Ignorance—stolid ignorance—is not our most dangerous enemy. There is very little of that kind of ignorance among the white population of this country.

"In the Old World, among the despotic governments of Europe, the great disfranchised class—the pariahs of political and social life—are indeed ignorant, mere inert masses, moved upon and controlled by the intelligent and cultivated aristocracy. Any unrepresented and hopelessly disfranchised class in a government will inevitably be struck with intellectual paralysis. Our late slaves afford a sad illustration.

"But among the represented and voting classes of this country, where all are equal before the law and every man is a political power for good or evil, there is but little of the inertia of ignorance. The alternatives are not education or no education, but shall the power of the citizen be directed aright toward industry, liberty, and patriotism, or, under the baneful influence of false theories and evil influences, shall it lead him continually downward till it ruin both him and the government?

"If he is not educated in the school of virtue and integrity, he will be educated in the school of vice and iniquity. We are therefore afloat on the sweeping current; we must make head against it or we shall go down with it to the saddest of destinies.

"According to the census of 1860 there were 1,218,311 free white inhabitants of the United States over 21 years of age who could not read nor write, and 871,418 of those were American-born citizens. One-third of a million of people are being annually thrown upon our shores from the Old World, a large per cent of whom are uneducated, and the gloomy total has been swelled by the 4,000,000 slaves admitted to citizenship by the events of the war.

"Such, sir, is the immense force which we must now confront by the genius of our institutions and the light of our civilization. How shall it be done? An American citizen can give but one answer. We must pour upon them all the light of our public schools. We must make them intelligent, industrious, patriotic citizens or they will drag us and our children down to their level. Does not this question rise to the full height of national importance and demand the best efforts of statesmanship to adjust it? Mr. Mann has well said:

> That legislators and rulers are responsible.
> In our country and in our times no man is worthy the honored name of a statesman who does not include the highest practicable education of the people in all of his plans of administration.
> He may have eloquence, he may have a knowledge of all history, diplomacy, jurisprudence, and by these he may claim, in other countries, the elevated rank of a statesman, but unless he speaks, plans, labors at all times and in all places for the culture and edification of the whole people, he is not, he can not be, an American statesman.

"Gentlemen who have discussed the bill this morning tell us that it will result in great expense to the Government. Whether an enterprise is expensive or not is altogether a relative question to be determined by the importance of its object.

"Now, what have we done as a nation in the way of expenses? In 1832 we organized a Coast Survey Bureau and have expended millions upon it. Its officers have triangulated thousands of miles of our coasts, have made soundings of all our bays and harbors, and carefully mapped the shoals, breakers, and coast lines from our northern boundary on the Atlantic to the extreme northern boundary on the Pacific coast. They have established 800 tidal stations to observe the fluctuations of the tides. We have expended vast sums in order perfectly to know the topography of our coasts, lakes, and rivers, that we might make navigation more safe. Is it of no consequence that we explore the boundaries of that wonderful intellectual empire which incloses within its domain the fate of succeeding generations and of this Republic? The children of to-day will be the architects of our country's destiny in 1900.

"We have established an Astronomical Observatory, where the movements of the stars are watched, latitude and longitude calculated, and chronometers regulated for the benefit of navigation. For this Observatory we pay one-third of a million per annum. Is it of no consequence that we observe the movements of those intellectual lights which shall, in the time to come, be guiding stars in our national firmament?

"We have established a Light-House Board, who are employing all the aids of science to discover the best modes of regulating the beacons upon our shores; they are placing buoys as waymarks to guide ships safely into our harbors. Will you not create a light-house board to set up beacons for the coming generation, not as lights to the eye, but to the mind and heart, that shall lead them safely in the perilous voyage of life and enable them to transmit the blessings of liberty to those who shall come after them?

"We have set on foot a score of expeditions to explore the mountains and valleys, the lakes and rivers, of this and other countries. We have expended money without stint to explore the Amazon and the Jordan, Chile and Japan, the gold shores of the Colorado, and the copper cliffs of Lake Superior; to gather and publish the great facts of science and to exhibit the material resources of physical nature. Will you refuse the pitiful sum of $13,000 to collect and record the intellectual resources of this country, the elements that lie behind all material wealth and make it either a curse or a blessing?

"We have paid three-quarters of a million dollars for the survey of the route for the Pacific Railroad, and have published the results at a great cost in 13 quarto volumes, with accompanying maps and charts. The money for these purposes was freely expended, and now, when it is proposed to appropriate $13,000 to aid in increasing the intelligence of those who will use that great continental highway when it is completed, we are reminded of our debts and warned against increasing our expenditures. It is difficult to treat such an objection with the respect that always is due in this hall of legislation.

"We have established a Patent Office, where are annually accumulated thousands of models of new machinery invented by our people. Will you make no expenditure for the benefit of the intelligence that shall stand behind that machinery and be its controller? Will you bestow all your favors upon the engine, and ignore the engineer? I will not insult the intelligence of this House by waiting to prove that money paid for education is the most economical of all expenditure; that it is cheaper to reduce crime than to build jails; that schoolhouses are less expensive than rebellions. A tenth of our national debt expended in public education fifty years ago would have saved us the blood and treasure of the late war. A far less sum may save our children from a still greater calamity.

"We expend hundreds of thousands annually to promote the agricultural interests of the country; to introduce the best methods in husbandry. Is it not of more consequence to do something for the farmer of the future than for the farm of to-day?

"As man is more precious than soil, as the immortal spirit is nobler than the clod it animates, so is the object of this bill more important than any mere pecuniary interest.

"The genius of our Government does not allow us to establish a compulsory system of education, as is done in some of the countries of Europe. There are States in this Union, however, which have adopted a compulsory system, and perhaps that is well. It is for each State to determine. A distinguished gentleman from Rhode Island told me lately that it is now the law in that State that every child within its borders shall attend school, and that every vagrant child shall be taken in charge by the authorities and sent to school. It may be well for other States to pursue the same course; but probably the General Government can do nothing of the sort. Whether it has the right of compulsory control or not, we propose none in this bill.

"But we do propose to use that power, so effective in this country, of letting in light on subjects and holding them up to the verdict of public opinion. If it could be published annually from this Capitol, through every school district of the United States, that there are States in the Union that have no system of common schools, and if their records could be placed beside the records of such States as Massachusetts, New York, Pennsylvania, Ohio, and other States that have a common-school system, the mere statement of the fact would rouse their energies and compel them for shame to educate their children. It would shame out of their delinquency all the delinquent States.

"Mr. Speaker, if I were called upon to-day to point to that in my own State of which I am most proud I would not point to any of the flaming lines of her military record, to the heroic men and the brilliant officers she gave to the late contest; I would not point to any of her leading men of the past or the present; but I would point to her common schools; I would point to the honorable fact that in the great struggle

of five years through which we have just passed she has expended $12,000,000 for the support of her public schools. I do not include in that amount the sums expended upon our higher institutions of learning. I would point to the fact that 52 per cent of the taxation of Ohio for the last five years, aside from the war tax and the tax for the payment of her public debt, has been for the support of her schools. I would point to the schools of Cincinnati, Cleveland, Toledo, and other cities of the State if I desired a stranger to see the glory of Ohio. I would point to the 13,000 school-houses and the 700,000 pupils in the schools of Ohio. I would point to the $3,000,000 she has paid for schools during the last year alone. This, in my judgment, is the proper gauge by which to measure the progress and glory of States.

"Gentlemen tell us there is no need of this bill—the States are doing well enough now. Do they know through what a struggle every State has come up that has secured a good system of common schools? Let me illustrate this by the example of Pennsylvania. Notwithstanding the early declaration of William Penn:

> That which makes a good constitution must keep it, namely, men of wisdom and virtue, qualities that, because they descend not with worldly inheritances, must be carefully propagated by a virtuous education of youth, for which spare no cost, for by such parsimony all that is saved is lost;

notwithstanding that wise master-builder incorporated this sentiment in his "frame-work of government" and made it the duty of the governor and council "to establish and support public schools;" notwithstanding Benjamin Franklin, from the first hour he became a citizen of Pennsylvania, inculcated the value of useful knowledge to every human being in every walk of life, and by his personal and pecuniary effort did establish schools and a college for Philadelphia; notwithstanding the constitution of Pennsylvania made it obligatory upon the legislature to foster the education of the citizens; notwithstanding all this, it was not till 1833–34 that a system of common schools, supported in part by taxation of property of the State, for the common benefit of all the children of the State, was established by law; and although the law was passed by an almost unanimous vote of both branches of the legislature, so foreign was the idea of public schools to the habits of the people, so odious was the idea of taxation for this purpose, that even the poor, who were to be specially benefited, were so deluded by political demagogues as to clamor for its repeal.

"Many members who voted for the law lost their nomination, and others, although nominated, lost their election. Some were weak enough to pledge themselves to a repeal of the law; and in the session of 1835 there was an almost certain prospect of its repeal and the adoption in its place of an odious and limited provision for educating the children of the poor by themselves. In the darkest hour of the debate, when the hearts of the original friends of the system were failing from fear, there rose on the floor of the house one of its early champions, one who, though not a native of the State, felt the disgrace which the repeal of this law would inflict like a knife in his bosom; one who, though no kith or kin of his would be benefited by the operations of the system, and though he should share its burdens, would only partake with every citizen in its blessings; one who had voted for the original law, although introduced by his political opponents, and who had defended and gloried in his vote before an angry and unwilling constituency; this man, then in the beginning of his public career, threw himself into the conflict, and by his earnest and brave eloquence saved the law, and gave a noble system of common schools to Pennsylvania.

"I doubt if, at this hour, after thirty years crowded full of successful labors at the bar, before the people, and in halls of legislation, the venerable and distinguished member [Mr. Stevens], who now represents a portion of the same State in this House, can recall any speech of his life with half the pleasure he does that, for no measure with which his name has been connected is so fraught with blessings to hundreds of thousands of children, and to homes innumerable. I hold in my hand a copy of his brave speech, and I ask the clerk to read the passages I have marked:

> I am comparatively a stranger among you, born in another, in a distant State; no parent or kindred of mine did, does, or probably ever will dwell within your borders. I have none of those strong cords to bind me to your honor and your interest; yet, if there is any one thing on earth which I ardently desire above all others, it is to see Pennsylvania standing up in her intellectual, as she confessedly does in her physical, resources, high above all her confederate rivals. How shameful, then, would it be for these her native sons to feel less so, when the dust of their ancestors is mingled with her soil, their friends and relatives enjoy her present prosperity, and their descendants, for long ages to come, will partake of her happiness or misery, her glory or her infamy! * * *
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> In giving this law to posterity, you act the part of the philanthropist, by bestowing upon the poor as well as the rich the greatest earthly boon which they are capable of receiving; you act the part o the philosopher, by pointing, if you do not lead them, up the hill of science; you act the part of th hero, if it be true, as you say, that popular vengeance follows close upon your footsteps. Here, the if you wish true popularity, is a theater on which you may acquire it. * * *
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> Let all, therefore, who would sustain the character of the philosopher or philanthropist sust this law. Those who would add thereto the glory of the hero can acquire it here; for, in the pre

state of feeling in Pennsylvania, I am willing to admit that but little less dangerous to the public man is the war club and battle-ax of savage ignorance than to the lion-hearted Richard was the keen scimiter of the Saracen. He who would oppose it, either through inability to comprehend the advantages of general education or from unwillingness to bestow them on all his fellow-citizens, even to the lowest and the poorest, or from dread of popular vengeance, seems to want either the head of the philosopher, the heart of the philanthropist, or the nerve of the hero.

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> But there are other things of the worth of which the demand of the market is by no means a test; things of which the utility does not consist in ministering to inclinations, nor in serving the daily uses of life, and the want of which is least felt where the need is greatest. This is peculiarly true of those things which are chiefly useful as tending to raise the character of human beings. The uncultivated can not be judges of cultivation.
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> Those who most need to be made wiser and better usually desire it least, and, if they desired it, would be incapable of finding the way to it by their own lights. It will continually happen on the voluntary system that, the end not being desired, the means will not be provided at all, or that, the persons requiring improvement having an imperfect or altogether erroneous conception of what they want, the supply called forth by the demand of the market will be anything but what is really required. Now, any well-intentioned and tolerably civilized government may think, without presumption, that it does, or ought to, possess a degree of cultivation above the average of the community which it rules, and that it should, therefore, be capable of offering better education and better instruction to the people than the greater number of them would spontaneously select.
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> Education, therefore, is one of those things which it is admissible in principle that the government should provide for the people. The case is one to which the reasons of the noninterference principle do not necessarily or universally extend.
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> With regard to elementary education, the exception to ordinary rules, may, I conceive, justifiably be carried still further. There are certain primary elements and means of knowledge which it is in the highest degree desirable that all human beings born into the community should acquire during childhood. If their parents, or those on whom they depend, have the power of obtaining for them this instruction, and fail to do it, they commit a double breach of duty: toward the children themselves, and toward the members of the community generally, who are all liable to suffer seriously from the consequences of ignorance and want of education in their fellow-citizens. It is, therefore, an allowable exercise of government to impose on parents the legal obligation of giving elementary instruction to children. This, however, can not fairly be done without taking measures to insure that such instruction shall always be accessible to them, either gratuitously or at a trifling expense.

"This is the testimony of economic science. I trust the statesmen of this Congress will not think the subject of education too humble a theme for their most serious consideration. It has engaged the earnest attention of the best men of ancient and modern times, especially of modern statesmen and philanthropists.

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"In his eloquent essay entitled 'Way to establish a free commonwealth,' John Milton said:

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"It is remarkable that so many good things have been said, and so few things done, by our national statesmen in favor of education. If we inquire what has been done by the governments of other countries to support and advance public education, we are compelled to confess with shame that every government in Christendom has given a more intelligent and effective support to schools than has our own.

"The free cities of Germany organized the earliest school systems after the separation of church and state. The present schools of Hamburg have existed more than one thousand years. The earliest school codes were framed in the duchy of Würtemburg in 1565, and in the electorate of Saxony in 1580. Under these codes were established systems of schools, more perfect, it is claimed, than the school system of any State of the American Union. Their systems embraced the gymnasium and the university, and were designed, as their laws expressed it, "to carry youth from the elements to the degree of culture demanded for offices in church and state."

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What! send out your vessels to the farthest ocean, and make battle with the monsters of the deep, in order to obtain the means of lighting up your dwellings and workshops, and prolonging the hours of labor for the meat that perisheth, and permit that vital spark, which God has kindled, which he has intrusted to our care to be fanned into a bright and heavenly flame; permit it, I say, to languish and go out!

"It is remarkable that so many good things have been said, and so few things done, by our national statesmen in favor of education. If we inquire what has been done by the governments of other countries to support and advance public education, we are compelled to confess with shame that every government in Christendom has given a more intelligent and effective support to schools than has our own.

"The free cities of Germany organized the earliest school systems after the separation of church and state. The present schools of Hamburg have existed more than one thousand years. The earliest school codes were framed in the duchy of Würtemburg in 1565, and in the electorate of Saxony in 1580. Under these codes were established systems of schools, more perfect, it is claimed, than the school system of any State of the American Union. Their systems embraced the gymnasium and the university, and were designed, as their laws expressed it, "to carry youth from the elements to the degree of culture demanded for offices in church and state."

state of feeling in Pennsylvania, I am willing to admit that but little less dangerous to the public man is the war club and battle-ax of savage ignorance than to the lion-hearted Richard was the keen scimiter of the Saracen. He who would oppose it, either through inability to comprehend the advantages of general education or from unwillingness to bestow them on all his fellow-citizens, even to the lowest and the poorest, or from dread of popular vengeance, seems to want either the head of the philosopher, the heart of the philanthropist, or the nerve of the hero.

"He has lived long enough to see this law, which he helped to found in 1834, and more than any other man was instrumental in saving from repeal, in 1835, expanded and consolidated into a noble system of public instruction. Twelve thousand schools have been built by the voluntary taxation of the people, to the amount, for schoolhouses alone, of nearly $10,000,000. Many millions of children have been educated in these schools. More than 700,000 attended the public schools of Pennsylvania in 1864–65, and their annual cost, provided by voluntary taxation in the year 1864, was nearly $3,000,000, giving employment to 16,000 teachers.

"It is glory enough for one man to have connected his name so honorably with the original establishment and effective defense of such a system.

"But it is said that the thirst for knowledge among the young; the pride and ambition of parents for their children, are agencies powerful enough to establish and maintain thorough and comprehensive systems of education.

"This suggestion is answered by the unanimous voice of publicists and political economists. They all admit that the doctrine of "demand and supply" does not apply to educational wants. Even the most extreme advocates of the principle of laissez faire as a sound maxim of political philosophy admit that governments must interfere in aid of education. We must not wait for the wants of the rising generation to be expressed in a demand for means of education. We must ourselves discover and supply their needs, before the time for supplying them has forever passed. John Stuart Mill says:

> But there are other things of the worth of which the demand of the market is by no means a test; things of which the utility does not consist in ministering to inclinations, nor in serving the daily uses of life, and the want of which is least felt where the need is greatest. This is peculiarly true of those things which are chiefly useful as tending to raise the character of human beings. The uncultivated can not be judges of cultivation.
>
> Those who most need to be made wiser and better usually desire it least, and, if they desired it, would be incapable of finding the way to it by their own lights. It will continually happen on the voluntary system that, the end not being desired, the means will not be provided at all, or that, the persons requiring improvement having an imperfect or altogether erroneous conception of what they want, the supply called forth by the demand of the market will be anything but what is really required. Now, any well-intentioned and tolerably civilized government may think, without presumption, that it does, or ought to, possess a degree of cultivation above the average of the community which it rules, and that it should, therefore, be capable of offering better education and better instruction to the people than the greater number of them would spontaneously select.
>
> Education, therefore, is one of those things which it is admissible in principle that the government should provide for the people. The case is one to which the reasons of the noninterference principle do not necessarily or universally extend.
>
> With regard to elementary education, the exception to ordinary rules, may, I conceive, justifiably be carried still further. There are certain primary elements and means of knowledge which it is in the highest degree desirable that all human beings born into the community should acquire during childhood. If their parents, or those on whom they depend, have the power of obtaining for them this instruction, and fail to do it, they commit a double breach of duty: toward the children themselves, and toward the members of the community generally, who are all liable to suffer seriously from the consequences of ignorance and want of education in their fellow-citizens. It is, therefore, an allowable exercise of government to impose on parents the legal obligation of giving elementary instruction to children. This, however, can not fairly be done without taking measures to insure that such instruction shall always be accessible to them, either gratuitously or at a trifling expense.

"This is the testimony of economic science. I trust the statesmen of this Congress will not think the subject of education too humble a theme for their most serious consideration. It has engaged the earnest attention of the best men of ancient and modern times, especially of modern statesmen and philanthropists.

"I will fortify myself in the positions I have taken by quoting the authority of a few men who are justly regarded as teachers of the human race. If I keep in their company I can not wander far from the truth. I can not greatly err while I am guided by their counsel.

"In his eloquent essay entitled 'Way to establish a free commonwealth,' John Milton said:

> To make the people fittest to choose, and the chosen fittest to govern, will be to mend our corrupt and faulty education, to teach the people faith, not without virtue, temperance, modesty, sobriety, economy, justice; not to admire wealth or honor; to hate turbulence and ambition; to place everyone his private welfare and happiness in the public peace, liberty, and safety.

"England's most venerable living statesman, Lord Brougham, enforced the same truth in these noble words:

> Lawgivers of England! I charge ye, have a care! Be well assured that the contempt lavished upon the cabals of Constantinople, when the council disputed on a text, while the enemy, the derider of all their texts, was thundering at the gate, will be a token of respect compared with the loud shout of universal scorn which all mankind in all ages will send up against you if you stand still and suffer a far deadlier foe than the Turcoman; suffer the parent of all evil, all falsehood, all hypocrisy,

all discharity, all self-seeking—him who covers over with pretexts of conscience the pitfalls that he digs for the souls on which he preys—to stalk about the fold and lay waste its inmates; stand still and make no head against him, upon the vain pretext to soothe your indolence, that your action is obstructed by religious cabals—upon the far more guilty speculation that by playing a party game you can turn the hatred of conflicting professors to your selfish purposes!

Let the soldier be abroad, if he will; he can do nothing in this age. There is another personage abroad, a person less imposing—in the eye of some insignificant. The schoolmaster is abroad, and I trust to him, armed with his primer, against the soldier in full uniform array.

"Lord Brougham gloried in the title of schoolmaster, and contrasted his work with that of the military conquerer in these words:

The conqueror stalks onward with the "pride, pomp, and circumstance of war," banners flying, shouts rending the air, guns thundering, and martial music pealing to drown the shrieks of the wounded and the lamentations for the slain. Not thus the schoolmaster in his peaceful vocation. He meditates and prepares in secret the plans which are to bless mankind; he slowly gathers around him those who are to further their execution; he quietly, though firmly, advances in his humble path, laboring steadily but calmly, till he has opened to the light all the recesses of ignorance and torn up by the roots the weeds of vice. His is a progress not to be compared with anything like a march, but it leads to a far more brilliant triumph, and to laurels more imperishable than the destroyer of his species the scourge of the world ever won.

"The learned and brilliant Guizot, who regarded his work in the office of minister of public instruction, in the Government of France, the noblest and most valuable work of his life, has left us this valuable testimony:

Universal education is henceforth one of the guarantees of liberty and social stability. As every principle of our government is founded on justice and reason, to diffuse education among the people, to develop their understanding and enlighten their minds, is to strengthen their constitutional government and secure its stability.

"In his farewell address Washington wrote these words of wise counsel:

Promote, as an object of primary importance, institutions for the general diffusion of knowledge. In proportion as the structure of a government gives force to public opinion, it is essential that public opinion should be enlightened.

"In his inaugural message, when first taking the Presidential chair, the elder Adams said:

The wisdom and generosity of the legislature in making liberal appropriations in money for the benefit of schools, academies, and colleges, is an equal honor to them and to their constituents, a proof of their veneration for letters and science, and a portent of great and lasting good to North and South America and to the world. Great is truth—great is liberty—great is humanity—and they must and will prevail

"Chancellor Kent used this decided language:

The parent who sends his son into the world uneducated defrauds the community of a lawful citizen, and bequeaths to it a nuisance.

"I shall conclude this citation of opinions with the stirring words of Edward Everett:

I know not to what we can better liken the strong appetence of the mind for improvement than to a hunger and thirst after knowledge and truth, nor how can we better describe the province of education than to say it does that for the intellect which is done for the body, when it receives the care and nourishment which are necessary for its growth, health, and strength?

From this comparison, I think I derive new views of the importance of education. It is now a solemn duty, a tender, sacred trust.

What! feed a child's body and let his soul hunger! pamper his limbs and starve his faculties!

Plant the earth, cover a thousand hills with your droves of cattle, pursue the fish to their hiding places in the sea, and spread out your wheat fields across the plains in order to supply the wants of that body, which will soon be as cold and senseless as their poorest clod, and let the pure spiritual essence within you, with all its glorious capacities for improvement, languish and pine! What! build factories, turn in rivers upon the waterwheels, unchain the imprisoned spirits of steam, to weave a garment for the body, and let the soul remain unadorned and naked!

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"The educational institutions of Prussia are too well known to need a comment. It is a sufficient index of their aim and high character that a late Prussian school officer said of his official duties:

I promised God that I would look upon every Prussian peasant child as a being who could complain of me before God if I did not provide for him the best education as a man and a Christian which it was possible for me to provide.

"France did not think herself dishonored by learning from a nation which she had lately conquered; for when, in 1831, she began to provide more fully for the education of her people, she sent the philosopher Cousin to Holland and Prussia to study and report upon the schools of those States. Guizot was made minister of public instruction, and held the office from 1832 to 1837. In 1833 the report of Cousin was published, and the educational system of France was established on the Prussian model.

"No portion of his brilliant career reflects more honor upon Guizot than his five years' work for the schools of France. The fruits of his labors were not lost in the revolutions that followed. The present Emperor is giving his best efforts to the perfection and maintenance of schools, and is endeavoring to make the profession of the teacher more honorable and desirable than it has been hitherto.

"Through the courtesy of the Secretary of State, I have obtained the last annual report of the minister of public instruction in France, which exhibits the present state of education in that Empire.

"At the last enumeration there were in France, in the colleges and lyceums, 65,832 pupils, in the secondary schools 200,000, and in the primary or common schools 4,720,234.

"Besides the large amount raised by local taxation, the Imperial Government appropriated during the year 1865 2,549,051 francs for the support of primary schools.

"Teaching is one of the regular professions in France, and the Government offers prizes and bestows honors upon the successful instructor of children. During the year 1865 1,154 prizes were distributed to teachers in primary schools.

"An order of honor and a medal worth 250 francs is awarded to the best teacher in each commune.

"After a long and faithful service in his profession the teacher is retired on half pay, and if broken down in health is pensioned for life. In 1865 there were 4,245 teachers on the pension list of France. The minister says in his report: 'The statesmen of France have determined to show that the country knows how to honor those who serve her even in obscurity.'

"Since 1862 10,243 libraries for the use of common schools have been established, and they now contain 1,117,352 volumes, more than a third of which have been furnished by the Imperial Government. Half a million text-books are furnished for the use of children who are too poor to buy them. It is the policy of France to afford the means of education to every child in the Empire.

"When we compare the conduct of other governments with our own we can not accuse ourselves so much of illiberality as of reckless folly in the application of our liberality to the support of schools. No government has expended so much to so little purpose. To fourteen States alone we have given, for the support of schools, 83,000 square miles of land, or an amount of territory nearly equal to two such States as Ohio. But how has this bountiful appropriation been applied? This chapter in our history has never been written. No member of this House or the Senate, no executive officer of the Government, now knows, and no man ever did know, what disposition has been made of this immense bounty. This bill requires the Commissioner of Education to report to Congress what lands have been given to schools, and how the proceeds have been applied. If we are not willing to follow the example of our fathers in giving, let us, at least, perpetuate the record of their liberality, and preserve its beneficent results.

"Mr. Speaker, I have thus hurriedly and imperfectly exhibited the magnitude of the interests involved in the education of American youth; the peculiar condition of affairs which demands at this time an increase of our educational forces; the failure of a majority of the States to establish school systems; the long struggles through which others have passed in achieving success, and the humiliating contrast between the action of our Government and those of other nations in reference to education; but I can not close without referring to the bearing of this measure upon the peculiar work of this Congress.

"When the history of the Thirty-ninth Congress is written it will be recorded that two great purposes inspired it and made their impress upon all its efforts, viz, to build up free States on the ruins of slavery, and to extend to every inhabitant of the United States the rights and privileges of citizenship.

"Before the divine Architect builded order out of chaos he said 'Let there be light.' Shall we commit the fatal mistake of building up free States without expelling the darkness in which slavery shrouded them? Shall we enlarge the boundaries of citizenship and make no provision to increase the intelligence of the citizen?

"I share most fully in the aspirations of this Congress, and give my most cordial support to its policy; but I believe its work will prove a disastrous failure unless it makes the schoolmaster its ally, and aids him in preparing the children of the United States to perfect the work now begun.

"The stork is a sacred bird in Holland, and is protected by public law, because it destroys those insects which would undermine the dikes and let the sea again overwhelm the rich fields of the Netherlands. Shall this Government do nothing to foster and strengthen those educational agencies which alone can shield the coming generation from ignorance and vice, and make it the impregnable bulwark of liberty and law?

"I know that this measure presents few attractions to those whose chief work is to watch the political movements which relate only to nominating conventions and elections. The mere politician will see in it nothing valuable, for the millions of children to be benefited by it can give him no votes. But I appeal to those who care more for the safety and glory of this nation than for any mere temporary advantage to aid in giving to education the public recognition and active support of the Federal Government."

The final action of the House on the bill was not reached till June 19, when, the question being taken by yeas and nays, it was passed by a vote of 80 yeas to 44 nays, with the following title and provisions:

AN ACT To establish a department of education.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there shall be established, at the city of Washington, a department of education for the purpose of collecting such statistics and facts as shall show the condition and progress of education in the several States and Territories, and of diffusing such information respecting the organization and management of schools and school systems, and methods of teaching, as shall aid the people of the United States in the establishment and maintenance of efficient school systems, and otherwise promote the cause of education throughout the country.

SEC. 2. *And be it further enacted*, That there shall be appointed by the President, by and with the advice and consent of the Senate, a commissioner of education, who shall be intrusted with the management of the department herein established, and who shall receive a salary of four thousand dollars per annum, and who shall have authority to appoint one chief clerk of his department, who shall receive a salary of two thousand dollars per annum, one clerk who shall receive a salary of eighteen hundred dollars per annum, and one clerk who shall receive a salary of sixteen hundred dollars per annum, which said clerks shall be subject to the appointing and removing power of the commissioner of education.

SEC. 3. *And be it further enacted*, That it shall be the duty of the commissioner of education to present annually to Congress a report embodying the results of his investigations and labors, together with a statement of such facts and recommendations as will, in his judgment, subserve the purpose for which this department is established. In the first report made by the commissioner of education under this act there shall be presented a statement of the several grants of land made by Congress to promote education, and the manner in which these several trusts have been managed, the amount of funds arising therefrom, and the annual proceeds of the same, as far as the same can be determined.

SEC. 4. *And be it further enacted*, That the commissioner of public buildings is hereby authorized and directed to furnish proper offices for the use of the department herein established.

The bill, in the Senate, was referred to the standing committee on the judiciary, who recommended its passage without amendment; and, after a debate on February 26, 1867, on a motion to substitute bureau for department, was passed without division on March 1, and signed by the President March 2. On March 11 Henry Barnard was nominated by President Johnson, on March 16 was confirmed by the unanimous vote of the Senate, and on March 17 entered on the duties of Commissioner of Education.

APPENDIX H.

[Dr. Barnard's plan of a central agency for the United States to advance education (Vol. XXI.)]

The following plan for "the increase and diffusion of knowledge," of education, and especially of popular education, and plans for its improvement through the Smithsonian Institution, or the American Association for the Advancement of Education, was submitted to the association by Hon. Henry Barnard:

The institution (or association) to appoint a secretary or agent, with a salary, and to furnish a room for an officer and depository of educational documents and apparatus, and beyond this not to be liable for any expense.

Again by the secretary or agent:

1. To devote himself exclusively to the "increase and diffusion of knowledge" on the subject of education, and especially of the condition and means of improving popular education, and particularly

2. To answer all personal or written inquiries on the subject, and collect and make available for use information as to all advances made in the theory and practice of education in any one State or country.

3. To attend, so far as may be consistent with other requisitions on his time, and without charge to the funds of the institution (or association), educational conventions of a national and State character, for the purpose of collecting and disseminating information.
4. To edit a publication to be entitled the "American Journal and Library of Education," on the plan set forth in the accompanying paper (A).
5. To collect:
(*a*) Plans and models of schoolhouses and furniture.
(*b*) Specimens of maps and other material aids of education.
(*c*) Educational reports and documents from other States and countries.
6. To institute a system of educational exchange between literary institutions in this and other countries.
To make arrangements, and effect, if practicable, at least one meeting or conference of the friends of educational improvement in Washington (or elsewhere) every year.
8. To submit annually a report in which shall be given a summary of the progress of education in each State and, as far as practicable, in every country.

A.

Plan of publication.—A quarterly or monthly issue under the general title of the "American Journal of Education."
I. A Journal of Education, to be issued in quarterly or monthly numbers, embracing articles on systems, institutions, and methods of education, and the current intelligence of literature and education, and to make an octavo volume annually of at least 600 pages.
II. A Library of Education, to consist of a series of independent treatises on the following (among other) subjects, to be issued in parts, and to be forwarded with the Journal to subscribers; the several parts or treatises to make an octavo volume of at least 600 pages per year:
1. A catalogue of the best publications on the organization, instruction, and discipline of schools of every grade, and on the principles of education in the English, French, and German languages.
2. A history of education, ancient and modern.
3. An account of elementary instruction in Europe, based on the reports of Bache, Stowe, Mann, and others.
4. National education in the United States, or contributions to the history and improvement of common or public schools and other institutions, means, and agencies of popular education in the several States.
5. School architecture, or the principles of construction, ventilation, warming, acoustics, seating, etc., applied to schoolrooms, lecture halls, and class rooms, with illustrations.
6. Normal schools and other institutions, means and agencies for the professional training and improvement of teachers.
7. System of public education for large cities and villages, with an account of the schools and other means of popular education and recreation in the principal cities of Europe and in this country.
8. System of popular education for sparsely populated districts, with an account of the schools in Norway and the agricultural portions of other countries.
9. Schools of agriculture, and other means of advancing agricultural improvement.
10. Schools of science applied to the mechanic arts, civil engineering, etc.
11. Schools of trade, navigation, commerce, etc.
12. Female education, with an account of the best seminaries for females in this country and in Europe.
13. Institutions for orphans.
14. Schools of industry, or institutions for truant, idle, or neglected children, before they have been convicted of crime.
15. Reform schools or institutions for young criminals.
16. Houses of refuge for adult criminals.
17. Secondary education, including schools of agriculture, engineering, trade, navigation, etc.
18. Colleges and universities.
19. Schools of theology, law, and medicine.
20. Military and naval schools.
21. Supplementary education, including adult schools, evening schools, courses of popular lectures, debating classes, mechanic institutes, etc.
22. Libraries, with hints for the purchase, arrangement, cataloguing, drawing, and preservation of books, especially in libraries designed for popular use.
23. Institutions for the deaf and dumb, blind, and idiots.
24. Societies for encouragement of science, the arts, and education.
25. Public museums and galleries.
26. Public gardens and other sources of popular recreation.
27. Educational tracts or a series of short essays on topics of immediate practical importance to teachers and school officers.
28. Educational biography, or the lives of distinguished educators and teachers.
29. Educational benefactors, or an account of the founders and benefactors of educational and scientific institutions.
30. Self-education, or hints for self-formation, with examples of the pursuit of knowledge under difficulties.
31. Home education, with illustrations drawn from the family training of different countries.
32. Educational nomenclature and index, or an explanation of words and terms used in describing the systems and institutions of education in different countries, with reference to the books where the subjects are discussed and treated of.
The series, when complete, will constitute an encyclopedia of education.

APPENDIX I.

[Dr. Barnard's plan in 1862 for a new series of the American Journal of Education (Vol. XXI).]

With the number for March, 1862, we shall commence a new series of the American Journal of Education, and, with a moderate encouragement from the thoughtful and active friends of educational improvement, we shall continue our quarterly issues until they have reached at least 6 volumes. We shall make no change in the general plan of this periodical. It will be devoted, as from the start, exclusively to the

history, biography, science, art, systems, institutions, and statistics of education in different countries, with special reference to the condition and wants of our own. We shall studiously avoid the insertion of all papers foreign to these great subjects, or of a single line or word calculated to injure the feelings of any faithful laborer in any allotment of the great field of American education. We leave the work of controversy to those who have more taste for it than we have, and shall labor diligently on the following points:

I. The history of pedagogy, or the successive developments of human culture, both theoretical and practical, under the varying circumstances of race, climate, religion, and government as drawn from special treatises of teachers and educators in different languages, or as embodied in the manners, literature, and history of each people.

In the development of this great theme, embracing many ages, races, and governments, we propose, not in precise chronological or ethnological order, but in papers prepared from time to time, as our studies or those of our colaborers may suggest, to show, to an extent which has not yet been attempted in the English language, what has been accomplished in the family and schools, by parents, teachers, and educators, for the systematic training of children and youth:

1. In the eastern nations before the birth of Christ—in China, India, Persia, Egypt, and Palestine—by Confucius, by the Vedas and Buddha, by Zoroaster and the Ptolemies, by Moses, David, Solomon, and the Rabbi.

2. Among the Greeks, at Crete, Sparta, and Athens, under the institutions of Pythagoras, Lycurgus, and Solon; by poets and philosophers and teachers, by Homer, Socrates, Plato, Aristotle, and Plutarch.

3. Among the Romans, in the infancy, maturity, and old age of Rome, by the didactics of Cato, Seneca, Tacitus, the Plinies, Quintilian, and Lucian.

4. Among modern nations, as reached by the teachings of Christianity, in the gradual unfolding of the present received ideas of school organization, and of the principles and methods of instruction, through (*a*) the peculiar organization and distinctive teaching of the early Christians; (*b*) the first popular school of the Christian fathers, Chrysostom and Basil; (*c*) the catechist schools of Clement and Origen; (*d*) the seminaries and cloister schools of Tertullian, Cyprian, Jerome, and Austin; (*e*) the monastic institutions of Benedict, Dominic, and Francis; (*f*) the court schools and educational labors of Charlemagne and Alfred; (*g*) the modifications wrought by Arabic culture which followed the incursions of the Moors; (*h*) the rise and expansion of universities; (*i*) the demand of chivalry for a culture for man and woman distinct from that of the clergy, and of incorporated cities for schools independent of ecclesiastical authorities; (*j*) the revival of the languages and the literature of Greece and Rome; (*k*) the long protracted struggle between humanism and realism, or between, on the one hand, the study of languages for the purposes of general culture and the only preparation for professions in which language was the great instrument of study and influence, and, on the other, the claims of science, and of the realities surrounding everyone, and with which everyone has to do every day in the affairs of peace or war; (*l*) and the gradual extension and expansion of the grand idea of universal education—of the education of every human being, and of every faculty of every human being, according to the circumstances and capabilities of each.

While thus aiming to give in each number contributions to the history of pedagogy and the internal economy of schools, we hope in this series to complete our survey of—

II. Systems of national education, and especially an account of public schools and other means of popular education in each of the United States, and of all other governments on the American continent.

III. The history and present condition of normal schools and other special institutions and agencies for the professional training and improvement of teachers.

IV. The organization and characteristic features of polytechnic schools and other institutions for the education of persons destined for other pursuits than those of law, medicine, and theology, including a full account of military schools.

V. The history and courses of study of the oldest and best colleges and universities in different countries.

VI. The life and services of many teachers, promoters, and benefactors of education whose labors or benefactions are associated with the foundation and development of institutions, systems, and methods of instruction.

HENRY BARNARD.

HARTFORD, *March, 1862.*

APPENDIX v.

[From Dr. Barnard's preface to his American Journal of Education, 1856, explaining the history of his plan.]

The plan of a series of publications, embracing a periodical to be issued monthly or quarterly, devoted exclusively to the history, discussion, and statistics of systems, institutions, and methods of education in different countries, with special reference to the condition and wants of our own, was formed by the undersigned in 1842, on the discontinuance of the first series of the Connecticut Common School Journal, commenced by him in August, 1838. In pursuance of this plan several tracts and treatises on distinct topics connected with the organization, administration, and instruction of schools of different grades, and especially of public elementary schools, were prepared and published, and the material for others was collected by travel, correspondence, purchase, and exchange.

The further prosecution of the work was suspended in consequence of his accepting the office of commissioner of public schools in Rhode Island, but was resumed in 1849, on his resigning the same. In 1850 the plan was brought, without success, before the American Institute of Instruction, at its annual meeting at Northampton, in connection with an agency for the promotion of education in New England. Having been induced to accept the office of superintendent of common schools in Connecticut for the purpose of reestablishing the educational policy which had been overthrown in 1842, the undersigned undertook to carry out his plan of publication by preparing a series of reports and documents, each devoted to one important subject, under authority of the legislature. In this connection Practical Illustrations of the Principles of School Architecture, Normal Schools, and Other Institutions and Agencies for the Professional Training and Improvement of Teachers, and National Education in Europe were prepared and published. Finding that the anxieties and labors of office combined with that general correspondence and special research and reflection which the completion of the series required were too much for his health, he resigned his office and addressed himself to the execution of the latter. Failing to enlist either the Smithsonian Institution or the American Association for the Advancement of Education in the establishment of a central agency, the undersigned undertook, in March, 1855, on his own responsibility, the publication of a Journal and Library of Education. Arrangements were accordingly made, in April, to print the first number of the American Journal of Education, in connection with the publication of the proceedings of the association for 1854, to be issued on or before the 1st of August, 1855.

CHAPTER XXIII.

LENGTH OF THE COLLEGE COURSE.

Owing to the increased requirements for admission to college, the extension in recent years of the professional courses of study, and the consequent advanced age at which college graduates begin their professional careers, the subject of shortening the college course of study has received considerable attention from the presidents and faculties of some of the leading institutions of the country.

As early as 1850 Brown University, at the suggestion of President Francis Wayland, rearranged the courses of study in order that the institution might increase the number of its students and become more useful to the community that it served. Among the reasons stated for the change may be mentioned the following:

> Many young men who intend to enter the professions are unwilling or unable to spend four years in the preparatory studies of college. They would, however, cheerfully spend one or two years in such study if they were allowed to select such branches of science as they chose. This class would probably form an important addition to our numbers, and we would thus, in some degree, improve the education of a large portion of all the professions.[a]

It will thus be seen that the liberal education of professional men and the devising of means whereby the period of preparation for their careers might be shortened was receiving consideration at that early date.

In accordance with the recommendation of President Wayland the requirements of Brown University for the several degrees were modified. The catalogue for 1850–51 states:

> It is the design of the corporation to require for the degree of bachelor of arts and of philosophy an amount of study which may be accomplished in three years, but which may, if he pleases, occupy the student profitably for four years; and to require for the degree of master of arts an amount of study which may be accomplished in four years, but which, if generously pursued, may occupy the student with advantage a considerably longer time.

Again, the catalogue for 1851–52 states:

> The degree of bachelor of arts is designed especially for those who desire to prepare themselves for the different professions and yet, from unavoidable circumstances, are unable to pursue a complete course of liberal education. In order to render it accessible to such students the number of studies is limited and a large liberty of choice is granted, that they may be enabled to select such studies as will the better enable them to prepare themselves for a particular profession.

The requirements for admission in 1850 were stated as follows:

> No student shall be admitted a candidate for the degree of bachelor or master of arts unless he sustain his examinations satisfactorily in arithmetic, ancient and modern geography, English grammar and the use of the English language, and in the Latin and Greek languages. He shall be able to translate and analyze grammatically the Greek Reader, or an equivalent portion of some classical Greek author, the Æneid of Virgil, Cæsar's Commentaries, and six orations of Cicero, or an equivalent amount of Latin, and be able to translate English into Latin and Greek.

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[a] History of Higher Education in Rhode Island, by William H. Tolman, p. 130.

The requirements for the degree of bachelor of arts were as follows.

First. Ancient languages for two years, mathematics for two years, English literature and two other courses for one year each; or, Second. One ancient language for two years, two modern languages, mathematics for two years, English literature and two other courses of one year each; or, Third. One ancient language for one year, mathematics for one year, one modern language, English literature, and four other courses of one year each.

The three years' course leading to the degree of bachelor of arts was maintained during the presidency of Dr. Wayland, but was abandoned after the accession of Dr. Barnas Sears. In 1857 the corporation decided to return to the old custom of conferring the degree of bachelor of arts after a course of four years and the degree of master of arts on such persons only as already had obtained the bachelor's degree.

One of the reasons advocated for the shortening of the college course at the present time is that the course of study now is at least two years in advance of what it was in 1860. In this connection it may be interesting to quote from a statement made by President Wayland in 1842, comparing the college course as it then was with the course as originally established. He says:

We see that the college course, at the period of its first establishment, commenced substantially where it commences now. The same time, four years, has been allotted to it in both cases. But let us observe the different amount of knowledge for which in the two cases the college system is held responsible. The mathematical course has been greatly extended. The same is true of natural philosophy in all its branches. Optics has become nearly a distinct science. Chemistry, geology, and political economy have since that time almost begun to exist. Intellectual philosophy and rhetoric have been either added to the course or else have been greatly enlarged, and the same may be said of physiology. [a]

While the number of subjects included in the college course has increased very rapidly, the requirements for admission have also been raised to a very large extent. In the early days of our American colleges very little beyond Latin and Greek was required for admission. The great advance that has been made in this direction is shown very clearly in the admission requirements of Harvard University at various dates in its history. The requirements in 1642, 1734, 1803, 1825, 1850, 1875, and 1885 are given in the following tabular statement and are followed by the requirements in 1902. Owing to the large number of subjects from which candidates are now allowed to select in fulfilling the admission requirements it is impossible to incorporate those of 1902 in a comparative tabular statement.

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[a] Thoughts on the Present Collegiate System of the United States, by Francis Wayland, p. 80.

LCD 1902——59

Admission requirements

	1642.	1734.	1803.	1825.	1850.
Latin.	Ability to read any classical author into English and readily make and speak true Latin and write it in verse and prose.	Read, construe, and parse Tully, Virgil, or such like common classical Latin authors, and write Latin in prose and verse.	Latin grammar, including prosody, Virgil, Sallust, Cicero's Select Orations.	Latin grammar (Gould's Adams's) including prosody; Virgil, Sallust, Cicero's Select Orations; composition.	Latin grammar (Andrews and Stoddard) including prosody; Virgil; Caesar's Commentaries; Cicero's Select Orations; composition.
Greek.	Read any classical author into English; decline the paradigms of nouns and verbs in the Greek tongue.	Read, construe, and parse ordinary Greek, as in the New Testament, Isocrates, or such like, and decline the paradigms of Greek nouns and verbs.	Greek grammar, including prosody; Dalzel's Collectanea Graeca Minora; Greek Testament.	Greek grammar (Gloucester or Buttmann), including prosody; Jacobs's Greek Reader; the Gospels in the Greek Testament.	Felton's Greek Reader; Sophocles's Greek Grammar, including prosody; writing Greek with the accents.
Mathematics.			Arithmetic to the rule of three.	Arithmetic (Lacroix, Cambridge edition); algebra (Euler) to end of simple equations.	Arithmetic (Davies, Hill); algebra (Euler) or Davies's First Lessons in Algebra to extraction of square root; Introduction to Geometry and the Science of Form as far as the seventh section of proportions.
Geography and history.			Knowledge of geography.	Ancient and modern geography (J. E. Worcester).	Ancient geography (Worcester); ancient history (Worcester).
English.					
Modern languages.					
Science.					

of Harvard University.

1875.		1885.
Course 1.	Course 2.	
Latin grammar, including prosody; composition, and Latin at sight; Cæsar, Gallic War, I-IV; Sallust, Catiline; Ovid, 4,000 lines; Cicero, eight orations, and the Cato Major; Virgil, Eclogues, and the Æneid, I-VI.	Latin grammar, including prosody; Cæsar, Gallic War, I-II; Cicero, six orations, and the Cato Major; Virgil, Æneid, I-VI.	Cæsar, Gallic War, I-IV (or I-III and Sallust, Catiline), with questions on the subject-matter and on construction and grammatical forms; Virgil, Æneid, I-VI (or Eclogues, and Æneid, I-V), with questions on the subject-matter and on prosody; translation at sight from Cæsar, including questions on grammar, history, and antiquities; composition.
Greek grammar (including meters); composition (with the accents); Goodwin and Allen's Greek Reader or Xenophon's Anabasis, I-IV, and the seventh book of Herodotus; Homer's Iliad, I-III, omitting the catalogue of ships.	Greek grammar (including meters); Goodwin and Allen's Greek Reader, first 111 pages, or Xenophon's Anabasis, I-IV; Homer's Iliad, I-II, omitting the catalogue of ships.	Translation at sight of easy passages from Xenophon (suited to the proficiency of those who have studied the first 111 pages of Goodwin's Greek Reader or Anabasis, I-IV), with a vocabulary of the less usual words. Translation into Greek of simple sentences (such as those in the first 55 lessons of White's First Lessons in Greek), to test the candidate's practical knowledge of grammar.
Arithmetic (including the metric system of weights and measures, together with the use and the rudiments of the theory of logarithms); algebra, through quadratics; plane geometry (first 13 chapters of Peirce's Geometry).	Arithmetic as in course 1; elementary algebra as in course 1; advanced algebra (Todhunter, Loomis, Greenleaf, etc.); plane geometry as in course 1; solid geometry (Peirce's Geometry); plane trigonometry (Peirce's Trigonometry, six chapters); elements of plane analytic geometry (Peck, certain parts of).	Arithmetic (prime and composite numbers; factors, divisors, and multiples; proportion; decimals, percentage, simple and compound interest, and discount, but not the technical parts of commercial arithmetic; compound numbers, metric system, square roots); algebra, through quadratics; plane geometry (first 13 chapters of Peirce's Geometry).
Greek history to death of Alexander, and Roman history to death of Commodus (Smith's smaller histories); modern geography (Guyot's Common School Geography); physical geography (Guyot, Parts II and III).	Same as in course 1	Greek history to death of Alexander (Smith's Smaller History of Greece); Roman history to death of Commodus (Leighton).
English composition on a subject taken from one of a number of prescribed works.	Same as in course 1	English composition, based on certain prescribed works.
French or German; translation at sight of easy prose; proficiency in elementary grammar accepted as an offset for some deficiency in translation.	Same as in course 1	French or German; translation at sight of easy prose.
.....	.....	Physics (Rolfe and Gillet, for high schools and academies, without appendix; Avery's Elements, or Gage's Elements).

Admission requirements of

	1642.	1734.	1803.	1825.	1850.
Additional subjects.					

Harvard University—Continued.

1875.		1885.
Course 1.	Course 2.	
		Also two of the four following groups: I. *Latin.*—Cicero, orations against Catiline and for Archias, with questions on subject-matter, construction, and grammatical forms; translation at sight of average passages from Cicero's Orations, with questions on grammar, history, and antiquities; translation at sight of average passages from the Æneid, and from Ovid's Metamorphoses, with questions on prosody; Latin composition. II. *Greek.*—Translation at sight of average passages from Herodotus, with such help in notes as should be needed by those who have studied the Herodotus in Goodwin's Reader (pp. 112-191), or Herodotus, VII, 196-239, and VIII; simple Greek prose composition; sight translation from the Iliad, or Iliad, I, II, verses 1-493, and III, with questions on the passages set for translation. III. *Mathematics.*—Logarithms, and plane trigonometry; solid geometry. IV. *Physical science.*—(1) Physics (Balfour Stewart's Lessons in Elementary Physics); (2) chemistry (Nichols's Abridgment of Eliot and Storer's Manual), or botany (Gray's How Plants Grow, with analysis of simple specimens).

1902.

A candidate for admission must offer from the list of admission subjects studies amounting to 26 points, of which points at least 4 must be in advanced studies. The studies offered must include: English, 4 points; one ancient language (elementary Latin or elementary Greek), 4 points; one modern foreign language (elementary German or elementary French), 2 points; elementary history, 2 points; algebra, 2 points; geometry or plane geometry, 3 or 2 points; studies amounting to 2 points from the following sciences: Elementary physics, chemistry, physiography, anatomy, etc., astronomy. The other points required may be selected from the subjects offered.

The studies which may be presented and the relative weights attached thereto are as follows:

Elementary.—English, 4; Greek, 4; Latin, 4; German, 2; French, 2; ancient history or English and American history, 2; algebra, 2; geometry, 3, or plane geometry, 2; solid geometry, 1; physics, 2; chemistry, 2; physiography, 1; anatomy, etc., 1.

Advanced.—Greek, 2; Latin, 2; German, 2; French, 2. One of the following four: Ancient history, 2; English and American history, 2; history of Europe, 2; history of a period, 2. Algebra, 1; logarithms and trigonometry, 1; astronomy, 1; physics, 2; meteorology, 1.

The requirements in the several subjects are:

1. *Elementary English.*—I. The candidate will be required to write a paragraph or two on each of several topics chosen by him from a considerable number—perhaps 10 or 15—set before him. The topics are drawn from certain prescribed works. II. A certain number of books are prescribed for careful study. The examination will be upon subject-matter, literary form, and logical structure, and will also test the candidate's ability to express his knowledge with clearness and accuracy.

2. *Elementary Greek.*—(*a*) Translation at sight of simple Attic prose. (*b*) A thorough examination on a prescribed portion of Xenophon (about 30 pages), directed to testing the candidate's mastery of the ordinary forms, constructions, and idioms of the language; the test to consist, in part, of writing simple Attic prose, involving the use of such words, constructions, and idioms only as occur in the portion of Xenophon prescribed. The portion of Xenophon prescribed is the second book of the Anabasis.

3. *Advanced Greek.*—(*a*) Translation at sight of Attic prose and of Homer, with questions designed to test the candidate's understanding of the passages set, and questions on ordinary forms, constructions, and idioms, and on prosody. (*b*) Translation into Attic prose of a short passage of connected English narrative (optional).

For the elementary examination in Greek, candidates should read from 130 to 170 pages of Attic prose. For the advanced examination from 30 to 50 pages more of Attic prose and from 3,000 to 5,000 verses of Homer.

4. *Elementary Latin.*—(*a*) Translation at sight of simple Latin prose and verse. (*b*) A thorough examination on a prescribed portion of Cicero's speeches (about 30 pages), directed to testing the candidate's mastery of the ordinary forms, constructions, and idioms of the language; the test to consist, in part, of writing simple Latin prose, involving the use of such words, constructions, and idioms only as occur in the speeches prescribed. The portion of Cicero prescribed is the second, third, and fourth speeches against Catiline.

5. *Advanced Latin.*—(*a*) Translation at sight of Latin prose and verse, with questions designed to test the candidate's understanding of the passages set, and questions on ordinary forms, constructions, and idioms, and on prosody. (*b*) Translation into Latin prose of a short passage of connected English narrative.

The course of reading for the examinations in Latin should include:

(*a*) Easy reading included in or following a suitable introductory book (Latin Lessons) amounting to from 30 to 40 pages.

(*b*) Nepos (Lives) and Cæsar (Gallic war), 90 to 120 pages.

(*c*) Cicero, 90 to 120 pages, including the four speeches against Catiline and the speech on the Manilian law, with additional speeches selected by the teacher.

(*d*) Virgil and Ovid, 6,000 to 10,000 verses, including the first six books of the Æneid.

Preparation for the elementary examination alone should include (*a*) and (*b*), the four speeches against Catiline, and from 2,000 to 3,000 verses of Virgil or of Ovid and Virgil.

6. *Elementary German.*—(*a*) Translation at sight of simple German prose. (*b*) Translation into German of simple English sentences, or of easy connected prose, to test the candidate's familiarity with elementary grammar. (Candidates should have read not less than 200 pages of easy German.)

7. *Advanced German.*—(*a*) Translation at sight of ordinary German. (*b*) Translation into German of a connected passage of English prose, to test the candidate's familiarity with grammar. Proficiency in grammar may also be tested by direct questions. (Candidates should have read, in addition to the amount specified under elementary German, not less than 500 pages of classical and contemporary prose and verse. Books recommended are: Riehl, Culturgeschichtliche Novellen; Freytag, Bilder aus der deutschen Vergangenheit, Die Journalisten; Kohlrausch, Das Jahr 1813; Schiller, Der dreissigjährige Krieg, Wilhelm Tell, Maria Stuart, Die Jungfrau von Orleans; Goethe, Hermann und Dorothea, Egmont, Iphigenie; Lessing, Minna von Barnhelm.)

8. *Elementary French.*—(*a*) Translation at sight of ordinary nineteenth century prose. (*b*) Translation into French of simple English sentences or of easy connected prose to test the candidate's familiarity with elementary grammar. (Candidates should have read not less than 400 pages from the works of at least three different authors.)

9. *Advanced French.*—(*a*) Translation at sight of standard French. (*b*) Translation into French of a connected passage of English prose to test the candidate's familiarity with grammar. (Candidates should have read, in addition to the amount specified under elementary French, not less than 600 pages of prose and verse from the writings of at least four standard authors.)

10. *Elementary history.*—1. *Greek and Roman history.*—(*a*) Greek history to the death of Alexander, with due reference to Greek life, literature, and art. (*b*) Roman history to the accession of Commodus, with due reference to literature and government. 2. *English and American history.*—(*a*) English history, with due reference to social and political development. (*b*) American history, with the elements of civil government.

11. *Advanced history.*—1. Greek history to the destruction of Corinth and Roman history to the death of Constantine (open to those only who have offered English and American history as an elementary study). 2. English history and American history (open to those only who have offered Greek and Roman history as an elementary study). 3. European history from the Germanic conquests to the beginning of the seventeenth century. 4. A year's study of any one of the four historical fields defined under elementary history and not already offered by the candidate, together with a year's detailed study of a limited period within that field, selected with the approval of the department of history.

12. *Elementary algebra.*—Algebra, through quadratic equations.

13. *Geometry.*—Plane and solid geometry, including problems in mensuration of plane and solid figures and original propositions in plane geometry.

13a. *Plane geometry.*

13b. *Solid geometry.*—Chauvenet's Geometry, revised and abridged, Books VI, VII, VIII, and IX.

14. *Logarithms and trigonometry.*—Theory of logarithms and use of logarithmic tables; plane trigonometry; solution of the right spherical triangle; applications to simple problems.

15. *Advanced algebra.*—Simultaneous quadratics and equations solved like quadratics; properties of quadratic equations; addition, subtraction, multiplication, and division of complex quantities; inequalities; variations; arithmetical and geometrical progressions; mathematical induction; simple problems in choice and chance; continued fractions; scales of notation; determinants, not including the multiplication theorem; simple applications of determinants to linear equations; solution of numerical equations of higher degree, and so much of the theory of equations as is necessary for this purpose.

16. *Elementary physics.*—A course of study dealing with the leading elementary facts and principles of physics, with quantitative laboratory work by the pupil.

17. *Chemistry.*—A course of at least 60 experiments, performed at school by the pupil and accompanied with systematic instruction in principles and their applications. (Both a written and a laboratory examination.)

18. *Physiography.*

19. *Anatomy, physiology, and hygiene.*—Elements. (Written and laboratory examination.)

20. *Advanced physics.*

21. *Meteorology.*—A course of observational study.

22. *Astronomy.*—A course of observational study.

An analysis of the foregoing requirements shows that in 1642 and in 1734 the only examinations required of candidates for admission to Harvard College were in Latin and Greek. By 1803 a small amount of arithmetic and a knowledge of geography

had been added. By 1825 the requirement in mathematics had been increased to include Lacroix's Arithmetic and Euler's Algebra to the end of simple equations, and Worcester's. Ancient and Modern Geography was also required. Another increase in the amount of mathematics was made in 1842, and we find in the requirements for 1850 that geometry to proportions had been added, algebra to square root was required, and ancient history had taken the place of modern geography. In 1875 candidates were allowed to choose between two separate sets of admission requirements, the requirements given under course 2 differing from course 1 only in the amount of ancient languages and mathematics, course 2 requiring less of the ancient languages and more mathematics. Comparing course 1 of 1875 with the requirements of 1850 we find another increase in mathematics; Worcester's Ancient History had given place to Smith's smaller histories of Greece and Rome; Guyot's Common School Geography and Guyot's Physical Geography had been added; also the candidate was required to write an English composition based on certain prescribed works, and to pass an examination in elementary French or German.

In 1876 an examination in one elementary science was added to the requirements. In 1885 certain amounts of Latin, Greek, mathematics, history, English, modern languages, and elementary physics were prescribed, and the candidate was required to offer additional work in two of four groups, to wit, Latin, Greek, mathematics, and physical science, the last including physics and chemistry or physics and botany. The requirements of 1902 are given above in detail, and owing to the large degree of election allowed it is a difficult matter to compare them with those of previous periods. They show, however, that the requirements in English, modern languages, history, mathematics, and science have been advanced considerably, and that the amount of time needed to satisfy the requirements added since 1860 is undoubtedly not less than two years. On this subject Dean Wright, of the academic department of Yale University, says:

"To be properly prepared in the subjects now required for admission to Yale, the average boy must somewhere find room for from one and one-half to two years more of work than was needed in 1859, and must be prepared to pass an examination much more difficult in kind."[a]

That the increase in the admission requirements has resulted generally in an increase in the average age of candidates for admission to college can not be doubted. In 1842 President Wayland, of Brown University, stated the average age at which students were then admitted to college to be 14 years.[b] The president of Harvard University in his report for 1847–48 said that the age at which students entered Harvard had increased considerably in late years, and was then nearly 17 years. In the period from 1856 to 1860 the average age of freshmen at Harvard was almost 18 years, and in the period from 1896 to 1900 it was over 19 years. At Harvard, therefore, the average age of freshmen has increased by more than two years in the past fifty-three years. The average age at the University of Pennsylvania in 1900 was 18 years 9 months. At Yale University the average age of students at graduation in 1863 and 1902 was practically the same, 22 years 10 months, and at no time during that period did the average age fall below 22 years, and only once (in 1899) did it exceed 23 years.

Assuming that the average age of freshmen has increased by two years, and taking into account the extension of the professional courses of study by about two years, we find the average age at which a college graduate may begin the practice of law or medicine to be about four years higher than formerly. In a number of the institutions having professional departments the time of study has been reduced by one year by allowing students to elect for the senior year in college the first year studies of the professional courses, thus practically shortening the college course to three years.

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[a] Report of the president of Yale University for 1901–2, p. 48.

[b] Thoughts on the Present Collegiate System of the United States, by Francis Wayland, p. 106.

Among the institutions allowing the election of the first year's work in a professional course in fulfillment of the requirements for the A. B. degree may be mentioned Columbia University, Cornell University, Western Reserve University, University of Nebraska, and Columbian University.

The following statement, taken from the report of the president of Harvard University for the year 1901–2, shows the action taken by that institution to enable students to complete the college course in less than four years:

The faculty of arts and sciences, stimulated by the board of overseers, arrived during the year under review at a clear definition of the terms on which the degree of bachelor of arts may be taken in Harvard College. In order to be recommended for the degree of bachelor of arts a candidate must have passed in studies amounting to 16 courses, together with such work in English as may be prescribed for him, making a total of 17 or 17½ courses, as the case may be. He must, moreover, have attained a grade above D in at least two-thirds of all the work done by him in Harvard University in satisfaction of the requirements for the degree. A student who enters the freshman class without serious deficiency may complete the requisite number of courses in four, three and a half, or three years.

This statement is the result of discussions which began in 1887. On December 6, 1887, the faculty of Harvard College received from the academic council the following communication:

"*Voted*, That with a view to lower the average age at which bachelors of arts of Harvard College can enter the professional schools and the graduate department the college faculty be requested to consider the expediency of a reduction of the college course."

This action of the council was due to the increasing difficulties caused by the prolongation of the period of professional education. The subject was first considered at some length by a large committee of the faculty, and after November 12, 1889, the faculty itself gave much time to it. On March 25, 1890, the faculty sent the following communication to the president and fellows:

"The faculty desires to modify its present regulations in accordance with the following propositions:

"1. That the requirements for the degree of bachelor of arts be expressed, under suitable regulations with regard to length of residence and distribution of work, in terms of courses of study satisfactorily accomplished.

"2. That the number of courses required for the degree be 16.

"3. That when a student enters college there shall be placed to his credit, toward satisfying the foregoing requirement of 16 courses, (1) any advanced studies on which he has passed in his admission examination beyond the number required for admission, and (2) any other college studies which he has anticipated.

"4. That a student may be recommended for the degree of bachelor of arts in the middle as well as at the end of the academic year.

"In case the measures here proposed should be adopted it is the purpose of the faculty to encourage the anticipation of college studies by students at the time of their admission and to facilitate the attainment of the degree of bachelor of arts in less than four years.

"The faculty further proposes to advise parents and teachers that 18 years is a suitable age for entering Harvard College."

The regular requirements for the degree of bachelor of arts were at that time 18.4 courses. It appearing to the board of overseers that the proposition of the faculty distinctly reduced the requirements for the Harvard A. B., the proposal was rejected by that board, the president of the university voting alone in favor of it. After that arrest of action certain votes were adopted by the faculty which reduced the total number of courses required for the degree; but they were not adopted with any intention to facilitate the gaining of the A. B. in less than four years. These votes were as follows: In 1890 a required course of elementary lectures on physics which had counted 0.2 of a course was abolished; and in 1894 a similar course in chemistry was abolished. These two faculty votes reduced the number of courses required for the A. B. to 18. In 1898 students who attained grade A or B in prescribed English A were exempted from the prescription of English B or BC; and the requirement for the degree of A. B. for such students was thereby reduced by a half course. In 1899 prescribed English C (a half course) was abolished, so that the requirement for the degree of A. B. became for all students not more than 17½ courses, and for some not more than 17. In 1899 also English A and English B were united to form a single full course prescribed for freshmen, so that the course now called English A became the only prescribed English. In consequence of the reductions which hav

been made in prescribed English since 1894 the amount of prescribed English is now one course or one and one-half courses, depending on the grade the freshman obtains in English A. The student who obtains a grade higher than D in English A has no more required English; but the student who receives grade D is required to take in the ensuing year a half course in English composition in addition to his regular elective work.

The present regulations of the faculty make it practicable for any student to complete 17 or 17½ courses in three years without undue exertion, and the standard of attainment, as expressed in grades, is precisely the same for students who obtain the degree in three years, three and one-half years, or four years, this standard having been slightly raised by vote of the faculty during the year now under review.

The overseers having requested the faculty in April, 1900, to make a plain statement for the catalogue of the requirements for the degree of bachelor of arts—the existing statements being in their opinion confusing and obscure—the faculty accepted for publication in the catalogue issued in December, 1901, a statement of the actual practice of the faculty at that time, prepared by Mr. Richard Cobb, then corresponding secretary, and this statement being forwarded to the board of overseers, the board passed on December 11, 1901, the following vote:

"The overseers are gratified to find in the catalogue a clearer statement of the requirements for the degree of bachelor of arts, and they await with interest and sympathy the report of the faculty which will recognize in a more formal way the system by which students of unusual diligence or marked mental capacity may obtain the degree of bachelor of arts in three years."

This vote encouraged the faculty to pursue the subject; so that last spring they abandoned the practice of requiring a candidate who accomplished the work for the degree in three years either to attain higher grades than were required of the candidate who took four years to complete the work or to wait a year for his degree on leave of absence; and they also raised a little the minimum attainment for the degree of A. B. as expressed in grades. A minority of the faculty favored a greater raising of the standard expressed in grades.

It is obvious from this review that the three years' course for the degree of A. B. at Harvard College is intended to demand as much work and as high attainments as are demanded in the four years' course. The governing boards and the faculty have had no intention of permitting the requirements for the Harvard A. B. to be lowered, although they have made it possible for diligent students to attain the degree in three years or three years and a half. This insistence on the sum of attainments for the degree is the characteristic feature of the whole evolution. Since the general effect of the elective system during the past thirty years has been greatly to raise the quality of the instruction throughout all the courses and half courses offered by the faculty of arts and sciences, it is obvious that the candidate who shall hereafter obtain the Harvard degree in three years will have to give on the average distinct evidences of higher scholarship than has been expected of his predecessors in any former generation.

To establish clearly this principle is worth the delay which has been experienced in bringing about this reform. From the financial point of view the delay has had one advantage—it has enabled the corporation to adapt its budget to a progressive loss of college students in the senior year. On the other hand, the college has had to forego the advantage of the large accessions of freshmen which might have followed from the sudden, unguarded offer of an A. B. degree in three years.

The faculty of arts and sciences has now done what it can to combat the great evil of too late entrance upon the professional careers or the business career. It has expressed its preference for the age of 18 as the age for entering college and its conviction that boys can be well prepared for college by that age, and it has made it possible for any diligent student to get the degree of bachelor of arts in three years. These two measures combined should enable parents to get their well-trained sons into the learned professions by 24 or 25 years of age and into business careers much earlier. To effect these improvements, however, the cooperation of parents, schools, and the community at large is essential.

The foregoing narrative shows conclusively that Harvard University has no sympathy with any efforts to lower the standard of the degree of bachelor of arts or to substitute for it an inferior degree. It proposes to uphold the standard of that degree by all appropriate legislation within its own walls and by the effect of its admission examinations on the secondary schools, and it has already done all that a university can do to support the primary degrees in arts and science by requiring such a degree for admission to its principal professional schools.

Columbia University.—The length of the college course is discussed very fully by President Butler, of Columbia University, in his first annual report for the year

1901–2. While President Eliot, of Harvard University, has thus far advocated the shortening of the period of residence for a bachelor's degree from four to three years, President Butler suggests the granting of the bachelor's degree at the end of a two years' course and the master's degree at the end of a four years' course of study. His reasons for the change are stated in detail in his report, and, owing to the general discussion occasioned thereby, his remarks on the subject are given in full, as follows:

I have pointed out that it is held to be settled policy at Columbia University that the several technical and professional schools shall rest upon a college course of liberal study as a foundation (although not necessarily upon a course four years in length), either at once or as soon as practicable. The school of law has already been placed upon the basis of a graduate school, to take effect July 1, 1903. On December 20, 1898, the university council recommended that the college of physicians and surgeons be made a graduate school as soon as such a step is financially practicable. The schools of applied science have constantly in mind a similar step, and much consideration has been given by the faculty to the best way of bringing about the change without undue sacrifice. This policy, however, does not pass unchallenged. It has recently been criticised and opposed in a cogent and noteworthy argument by President Hadley, of Yale University, in his annual report for the year 1901–2, on the grounds (1) that it tends to make the professions exclusive in a bad sense; (2) that it leads to a remodeling of the college course to meet the needs of intending professional students, which remodeling is at least a doubtful experiment; and (3) that it establishes an unfortunate distinction between the universities which require a bachelor's degree as a condition of admission to the professional schools and those which make no such requirement. This policy is also criticised and opposed by many intelligent persons, trusted leaders of public opinion, not university teachers or administrators, who are impressed by the fact that the whole tendency of our modern educational system is to prolong unduly the period of preparation or studentship, with the result that an increasing number of young men are held back from active and independent participation in the practical work of life until they are nearly or quite 30 years of age. In the face of such objections as these it is obvious that we at Columbia must consider carefully the probable social and educational effects of the policy upon which we have entered.

The questions raised in the discussion of this policy are to be decided, it seems to me, from the standpoint of the duty of the university to the public and to its own educational ideals. Two interests are immediately at stake—the standards of professional study in a university and the place of the American college in the higher education of the twentieth century. I doubt whether the two interests can be separated in any adequate consideration of the subject.

President Eliot, of Harvard University, impressively set forth the responsibilities and the opportunities of the learned professions in his address at the installation ceremonies on April 19 last, when he said:

"It is plain that the future prosperity and progress of modern communities is hereafter going to depend much more than ever before on the large groups of highly trained men which constitute what are called the professions. The social and industrial powers and the moral influences which strengthen and uplift modern society are no longer in the hands of legislatures, or political parties, or public men. All these political agencies are becoming secondary and subordinate influences. They neither originate nor lead; they sometimes regulate and set bounds, and often impede. The real incentives and motive powers which impel society forward and upward spring from those bodies of well-trained, alert, and progressive men known as the professions. They give effect to the discoveries or imaginings of genius. All the large businesses and new enterprises depend for their success on the advice and cooperation of the professions."

With such an ideal as this held up before the student of law, of medicine, of divinity, of teaching, of architecture, or of applied science, what standard of excellence shall the university require of him when he enters upon his professional studies? Three answers seem to be possible: The university may require (1) the completion of a normal secondary school course of four years, and so put admission to the professional and technical schools on a plane with admission to college, or (2) the completion of the present college course of four years, or (3) the completion of a shortened college course.

When weighing the advantages and disadvantages of these several lines of action it should be borne in mind that a uniform policy on the part of all universities in dealing with this question is not necessary and may not be desirable.

directly concerned with the question so far as it concerns the duty and the interest of Columbia; but the universities having different social and educational needs to meet, and somewhat different ideals to labor for, may be wise in reaching a conclusion quite different from that which most commends itself to us. This consideration seems to me to meet the third of President Hadley's objections, already referred to. Furthermore, the universities do not control admission to the practice of the professions, and it is not in their power, as it is certainly not their wish, to shut out from his chosen profession any competent person, whatever his training or wherever it has been had. If the standards of professional study required by the universities are higher than the minimum fixed by law, no one will attend a university for professional study unless its standards appeal to him and unless he hopes to find ultimate gain by conforming to them at some expense of both time and money. On the other hand, if the universities make the minimum standards fixed by law their own—and only by so doing can they avoid discriminating against some one—then they seem to me to have abdicated their functions as leaders in American intellectual life. The result would quickly be seen, I am sure, in the falling off of popular favor and support. These facts appear to meet the first of President Hadley's objections. His second objection involves a discussion of the significance of the college course, a subject which I shall consider in its proper place.

Columbia University can not be satisfied with a requirement of only secondary school graduation for admission to the professional and technical schools, for several reasons:

1. Such students at 17 or 18 years of age (or, as should be the case, at 16 or 16½ years) are too immature to carry on a severe course of professional study with profit.

2. When such students predominate, or form a large proportion of the total number attending any given professional school, the teaching deteriorates and the instruction tends to become either superficial or unduly long drawn out and wasteful of time.

3. Other institutions in various parts of the country afford the fullest opportunity for students who are compelled to remain satisfied with the shortest possible preparation for the practice of a profession, and Columbia would not be justified in using its funds merely to add to a provision which is already ample. Columbia offers the most generous assistance to students who are able and willing to meet its standards and who need help in order to carry on their studies, but is not willing to lower those standards at the cost of social and educational effectiveness.

4. Secondary school graduates, however well taught, are necessarily without the more advanced discipline in the study of the liberal arts and sciences and without that wider outlook on the world of nature and of man which it is the aim of the college to give. It is our hope and wish that those who hold professional or technical degrees from Columbia University will be not only soundly trained in their chosen professions, but liberally educated men as well. No stress is laid upon the college degree as a mere title, but it is held to stand, in the vast majority of cases, for greater maturity of mind and broader scholarship.

5. For Columbia University to admit students to the professional and technical schools upon the same terms as those by which admission to the college is gained would be to throw the weight of our influence against college education in general and against Columbia College in particular. After a few years, no student who looked forward to a professional career would seek admission to Columbia College, or to any other, except those who had ample time and money to spare.

On the other hand, while I hold a secondary school education to be too low a standard for admission to professional study at Columbia University, personally I am of opinion that to insist upon graduation from the usual four years' college course is too high a standard (measured in terms of time) to insist upon, and an unsatisfactory one as well. My view of the matter is concurred in by the dean of Columbia College, by the dean of the faculty of law, and by the dean of Teachers College.

My objections to making graduation from a four years' college course a prerequisite for professional study at Columbia University are mainly two:

1. I share the view, already alluded to, that the whole tendency of our present educational system is to postpone unduly the period of self-support, and I feel certain that public opinion will not long sustain a scheme of formal training which in its completeness includes a kindergarten course of two or three years, an elementary school course of eight years, a secondary school course of four years, a college course of four years, and a professional or technical school course of three or four years, followed by a period of apprenticeship on small wages or on no wages at all.

2. Four years is, in my opinion, too long a time to devote to the college course as now constituted, especially for students who are to remain in university residence as technical or professional students. President Patton, of Princeton University,

voiced the sentiments of many of the most experienced observers of educational tendencies when he said that "in some way that delightful period of comradeship, amusement, desultory reading, and choice of incongruous courses of what we are pleased to call study, which is characteristic of so many undergraduates, must be shortened in order that more time may be given to the strenuous life of professional equipment." For quite twenty years President Eliot has advocated this view and in arguments which have seemed to me unanswerable, under the conditions existing at Harvard, has urged that the degree of bachelor of arts be given by Harvard College after three years of residence. At Columbia, and elsewhere, the practice of counting a year of professional study as a substitute for the fourth, or senior, year of the college course has in effect established a three-years' college course for intending professional and technical students. The degree has been withheld until a year of professional study has been completed, in deference to tradition rather than from sound educational principle. In this way new conditions have been met without the appearance of shortening the college course. While the policy hitherto pursued in this regard was justified as a beginning toward a readjustment of the relations between the college and the professional and technical schools, it is hardly to be upheld as a final solution of the problems presented. From my point of view it is open to criticism in that it (1) shortens the college course without appearing to do so, (2) divides the interest of the student in a way that is satisfactory neither to the college nor to the faculties of the professional schools, and (3) fails to give the full support to a college course of purely liberal study which is so much to be desired.

There remains a third line of action, namely, that of basing admission to the professional and technical schools of the university upon a shortened course in Columbia College or its equivalent elsewhere. This I believe to be the wisest plan for Columbia University to adopt, as well as the one whose general adoption would result in the greatest public advantage.

One consideration of vital importance appears to have been overlooked in the numerous discussions of this whole matter, and that is the fact that there is no valid reason why the college course should be of one uniform length for all classes of students. The unnecessary assumption of the contrary view has greatly complicated the entire question, both in the public and in the academic mind. It must be remembered that for the intending student of law, medicine, or applied science who goes to college, three or four additional years of university residence and study are in prospect after the bachelor's degree has been obtained. For the college student who looks forward to a business career, on the other hand, academic residence closes with graduation from college. For the latter class, therefore, the college course may well be longer than for the former. While two or three years of purely college life and study may be ample for the man who proposes to remain in the university as a professional or as a technical student, three or even four years may be desirable for him who at college graduation leaves the university, its atmosphere, its opportunities, and its influence forever.

It must be remembered, too, that the four-years' college course is merely a matter of convention, and that there are many exceptions to the rule. The Harvard College course was at one time but three years in length, and the collegiate course at the Johns Hopkins University has been three years in length from its establishment. The normal period of residence for an undergraduate at both the English and the Scottish universities is three years. President Wayland, of Brown University, who was in so many ways a true prophet of educational advance, devised a plan for a normal three-years' college course over half a century ago. The question is not so much one of the time spent upon a college course as it is one of the quality of the work done and the soundness of the mental and moral training given. The peculiar service which the college exists to perform may be done in one case in two years, in another in three, in another in four, and in still another not at all.

Since 1860 the changes in American educational conditions have been revolutionary, and as one result the content of the A. B. degree has been wholly altered and that degree has been elevated, at Columbia College at least, to a point almost exactly two years in advance of that at which it then was. In other words, despite the fact that college admission requirements have been raised and much of the instruction once given in college is now given in the secondary schools, particularly the public high schools, the bachelor's degree has been held steadily at a point four years distant from college entrance, with the result that the average age of college students at graduation has greatly increased. Since 1880 the average age of the students entering Columbia College has increased exactly one year, and while no adequate statistics for 1860 are available, it appears to be true that the average age of admission in 1880 was one full year higher than in 1860. The registrar has made a careful examination of the official records, and reports that in Columbia College we are demanding two

years more of time and work for the degree of bachelor of arts than was required in 1860, and one year more of time and work than was required in 1880. President Hyde, of Bowdoin College, has recently said that "nearly all the distinguished alumni of Bowdoin College graduated at about the present average age of entrance, and were well launched on their professional careers at about the age at which our students now graduate." He cited the cases of Jacob Abbott and William Pitt Fessenden, who were graduated before they were 17; Longfellow, who was graduated at 18; Franklin Pierce, John A. Andrew, Fordyce Barker, and Egbert Smyth at 19, and William P. Frye and Melville W. Fuller at 20. Instances might readily be multiplied from the records of the American colleges. The recent statistics compiled by Dean Wright, of the academical department of Yale University, which show the average age of graduation of the members of the class of 1863 at Yale to have been 22 years, 10 months, and 17 days and that of the members of the class of 1902 to have been 22 years, 10 months, and 20 days, point to what appears to be a striking exception, not yet explained, to the general rule.

So long as there were no graduate schools, and therefore no genuine universities, in the United States, and when the bachelor's degree was the highest academic distinction to be gained in residence, it was sound academic and public policy to make the requirements for the degree of bachelor of arts as high as possible. It was the only mark of scholarship that the colleges could give. As a result the average age at graduation increased. Now, however, conditions have entirely changed. Nearly or quite one-half of the work formerly done in college for the degree of bachelor of arts is now done in the rapidly increasing number of secondary schools, particularly public high schools, and no small part of it is required for admission to college. This does not appear if the comparison be restricted to admission requirements in Greek, Latin, and mathematics; but it is clearly evident when the present admission requirements in English, history, the modern European languages, and the natural sciences are taken into account. The standard of scholarship in this country is no longer set by the undergraduate courses in the colleges or by the time devoted to them, but by the post-graduate instruction in the universities and by the requirements demanded for the degree of doctor of philosophy.

These being the undisputed facts, it would appear to be wise and possible to treat the length of the college course and the requirements, both in time and in accomplishment, for the degree of bachelor of arts from the standpoint of present-day needs and the largest social service.

In my opinion it is already too late to meet the situation by shortening the college course for all students to three years, although such action would be a decided step forward so far as the interests of intending professional and technical students are concerned. When President Eliot first proposed a three-years' course for Harvard College the suggestion was, I think, a wise one. But in the interval conditions have changed again. If we at Columbia should be willing to go no further than to reduce the length of the college course from four years to three, we should (1) find it impracticable both on financial and on educational grounds to require that course as prerequisite for admission to the schools of applied science, and possibly to the school of medicine, and (2) we should be unable to resist the pressure for further reconstruction and rearrangement that would be upon us before our work was completed and in operation. My own belief is that Columbia University will perform the greatest public service if it establishes two courses in Columbia College, one of two years and one of four years, the former to be included in the latter, and if it requires the satisfactory completion of the shorter course, or its equivalent elsewhere, for admission to the professional and technical schools of the university. By taking this step we should retain the college with its two years of liberal studies as an integral element in our system, shorten by two years the combined periods of secondary school, college, and professional school instruction, and yet enforce a standard of admission to our professional schools which, both in quantity and in quality, is on a plane as high as the Columbia degree of bachelor of arts of 1860, which was recognized as conforming to a very useful standard of excellence. At the same time we should retain the four-years' course with all its manifest advantages and opportunities for those who look forward to a scholarly career, and for as many of those who intend to enter upon some active business after graduation as can be induced to follow it.

Under such a plan we should have in Columbia College four different classes of students: (1) Those who were taking the shorter course of two years in preparation for a technical and professional course, and who would, therefore, look forward to a total university residence of five or six years; (2) those who were taking the shorter course of two years, but without any thought of subsequent professional or technical study; (3) those who felt able to give the time necessary to take the longer course

of four years before entering a professional or technical school; and (4) those who, as now, take the four years' college course without any intention of technical or professional study. The second class of students would be a new and highly desirable class, and would be, for the most part, made up of earnest young men seeking a wider and more thorough scholarly training than the secondary school can offer, but unable to devote four years to that end. The third class of students would be able, by a proper selection of studies in the later years of their college course, either to enter a professional school with advanced standing or to anticipate some of the preliminary professional studies and to devote the time so gained to more intensive professional work. Undoubtedly many students who now take a four years' undergraduate course with no professional or technical end in view would take the shorter course, and that only, but on the other hand numbers of students would come to college for a course of two years who when obliged to choose between a four years' course and none at all are compelled to give up college altogether. The final result of the changes would certainly be to increase the total number of students taking a college course of one length or another.

The dean of Columbia College is of the opinion that such a shortened course of two years as is contemplated by this suggestion could readily be made to include all of the studies now prescribed at Columbia for candidates for the degree of bachelor of arts. This shortened course would, therefore, take on something of the definitiveness and purpose which in many cases the rapid developments of recent years have removed from undergraduate study; for it goes without saying that no effort would be spared to make such a two years' course as valuable as possible, both for intellectual training and for the development of character. The student would be a gainer, not a loser, by the change.

If Columbia College should offer two courses in the liberal arts and sciences, one of two years and one of four years in length, the second including the first, the question would at once arise as to what degrees or other marks of academic recognition would be conferred upon students who had satisfactorily completed them.

Two answers appear to be possible. First, we may withhold the bachelor's degree until the completion of the longer course, and grant some new designation to those who satisfactorily complete the shorter course. This has been done at the University of Chicago, where graduates of the junior college course of two years are made associates in arts. Or we may degrade—as it is called—the bachelor's degree from the artificial position in which the developments of the last forty years have placed it, and confer it upon the graduates of the shorter course of two years, and give the degree of master of arts for the longer course of four years. The latter alternative would be my own preference. Such a plan would bring the degree of bachelor of arts two years earlier than now and would place it substantially on a par with the bachelor's degree in France, the Zeugniss der Reife in Germany, and the ordinary degree in course as conferred by the English and the Scottish universities. It would also be substantially on a par with the Columbia College degree of 1860.

In this connection it must be remembered that it is not the A. B. degree of to-day which is so much extolled and so highly esteemed as the mark of a liberal education gained by hard study and severe discipline, but that of one and two generations ago. The A. B. degree of to-day is a very uncertain quantity, and time alone will show whether it means much or little.

The degree of master of arts is an entirely appropriate reward for the completion of a college course, under the new conditions proposed, four years in length. This degree has been put to many varied uses and has no generally accepted significance. In Scotland it is given in place of the degree of bachelor of arts at the close of three very short years of undergraduate study. In England it signifies that the holder is a bachelor of arts, that he has lived for a certain minimum number of terms after obtaining the bachelor's degree, and that he has paid certain fees. In Germany it is usually included in the degree of doctor of philosophy. In the United States the degree is more often than not a purely honorary designation; although in recent years the stronger universities have guarded it strictly and now grant it for a minimum period of graduate study for one year in residence. At the meeting of the Association of American Universities in February last there was a very interesting discussion on the subject of this degree, and the divergence of policy in regard to it was made plainly evident. As an intermediate degree between those of bachelor of arts and doctor of philosophy, that of master of arts has been, and is, very useful at Columbia. It marks the close of a period of serious resident graduate study, and is an appropriate reward for the work of those university students who have neither the inclination nor the peculiar abilities and temperament to fit themselves for successful examination for the degree of doctor of philosophy. At the same time it must be admitted that the rapid development of the elective system and the widely different standards of the

scores of colleges from which our graduate students come, have almost wiped out the distinction between the senior year in Columbia College and the first year of graduate study. To the best of my knowledge and belief, the fixing of the degree of master of arts at the close of a four years' undergraduate course would involve no real alteration in the standard required on the part of those coming to Columbia from other institutions. For students of Columbia College it would bring the degree within reach after four years of residence instead of five.

In the case of candidates for the degree of doctor of philosophy, the completion of the longer college course, or its equivalent elsewhere, would of course be required, and also the same minimum period of postgraduate resident study as now. There would be no alteration in the time necessary or the standard now set for that degree, which as conferred at Columbia is recognized as conforming to the highest and best standards.

With the courses in applied science and in medicine fixed at four years, to base them upon a two years' college course would be to elevate them to a proper university standard and to insure the best possible class of students. The law school and the professional courses in Teachers College could easily be put upon the same basis.

Reflection and a careful study of the facts will make it apparent that these suggestions are less radical than seems to be the case on first sight. They at least offer a solution to a generally recognized problem, one which has often been pointed to but toward the solution of which little progress has been made. I shall seek an early opportunity of bringing them before the university council and the several faculties for full consideration and discussion.

Should Columbia University adopt such a policy as has been outlined, and should the same or a similar policy commend itself to the governing bodies of any other American universities whose problems are similar to ours, a development already in progress throughout the country would be ha-tened. As the public high schools multiply and strengthen they will tend more and more to give the instruction now offered in the first year, or first two years, of the college course. In so far, they will become local colleges, but without the characteristic or the attractiveness of student residence. Furthermore, the time would sooner come when colleges, excellent in ideals and rich in teaching power, but without the resources necessary to carry on a four years' course of instruction satisfactorily, will raise the requirements for admission to a proper point and then concentrate all their strength upon a thoroughly sound course of two years leading to the bachelor's degree. More depends upon the strict enforcement of proper standards of admission to college than is generally believed; that is at present the weakest point in college administration. The general standard of college education in the United States would be strengthened more if the weaker colleges would fix and rigidly enforce proper entrance requirements and concentrate all their money and energies upon two years of thorough college work than if they continue to spread a college course over four years with admission secured on nominal terms or on none at all.

The policy outlined would, I think, largely increase the number of students seeking a college education, and many who might enter one of the stronger colleges for the two years' course would remain for four years. The loss of income due to the dropping out of students after two years of residence would be more than made good very soon by the large increase in college attendance.

As the system of higher education in the United States has developed it has become apparent that we have substituted three institutions—secondary school, college, and university—for the two—secondary school and university—which exist in France and Germany. The work done in the United States by the best colleges is done in France and Germany one-half by the secondary school and one-half by the university. The training given in Europe differs in many ways from that given here, but from an administrative point of view the comparison just made is substantially correct. The college, as we have it, is peculiar to our own national system of education, and is perhaps its strongest, as it certainly is its most characteristic, feature. It breaks the sharp transition which is so noticeable in Europe between the close surveillance and prescribed order of the secondary school and the absolute freedom of the university. Its course of liberal study comes just at the time in the student's life to do him most good, to open and inform his intelligence and to refine and strengthen his character. Its student life, social opportunities, and athletic sports are all additional elements of usefulness and of strength. It has endeared itself to three or four generations of the flower of our American youth, and it is more useful to-day than at any earlier time.

For all of these reasons I am anxious to have it preserved as part of our educational system and so adjusted to the social and educational conditions which surround us that a college training may be an essential part of the higher education of an American whether he is destined to a professional career or to a business occupation. It seems to me clear that if the college is not so adjusted it will, despite its recent

rapid growth, lose its prestige and place of honor in our American life, and that it may eventually disappear entirely, to the great damage of our whole educational system.

Yale University.—In discussing the requirements for admission to professional courses President Hadley, in his report for 1901–2, says:

The introduction of professional studies into the college course has been a disappointment to its advocates, except in those cases where the professional element and motive became so complete that it operated as a shortening of the college course itself. This shortening of the college course is advocated by a great many persons who say that the college graduate of to-day is a year older than he was a generation ago. But I doubt very much whether this is true of institutions which a generation ago had unquestioned rank as colleges instead of high schools. It is certain that the interesting statistics collected by Professor Wright show the change in this respect at Yale to have been less than is supposed. The class of 1863, the first for which we have records, had an average age of 22 years and 10½ months, an average which has been exceeded by only four classes in the years that have followed. It may be that the logic of events will cause us after a time to shorten our college courses. But for the present I see no reason why the man who is going into mercantile or manufacturing business should be deprived of one year of his college education because some of the medical schools and law schools wish their entering classes to be able to write the letters A. B. after their names. If a man can afford to take the bachelor's degree before entering the professional schools, and can benefit by the opportunities of the college, in the course and out of it, by all means let him pursue the course and take the degree. But let us not require the letters which show that he has taken the degree and sacrifice, either by changes in the character of our studies or the length of our courses, the underlying spirit which alone would render those letters valuable. Shape the college course for the needs of the men who want a college course rather than for those who take it more or less reluctantly as a compulsory stepping-stone to something else.

In the same report Dean Wright, of the academic department of Yale, says, concerning the opportunities for shortening the period of residence:

If, however, anyone desires by extra effort to save a year, the college offers him the opportunity. It does not lessen the amount of work required for the bachelor's degree, but will allow a good student to so arrange his work that the period given to college studies may be shortened. This can be done by anticipating one or more courses at the beginning of each college year or by taking extra courses in sophomore or junior year or both. The opportunity is also offered to academic students to take more or less work in the professional schools. Members of the senior class are allowed to elect five hours per week in courses given either by the law, the medical, or the theological faculty, and the work thus done may count at the same time toward the bachelor's degree. In addition, a student in his senior year may devote to studies in a professional school any hours not needed for the degree of bachelor of arts. If, by anticipating courses or by taking extra courses, ten additional hours are completed by the end of the junior year, the whole of the senior year may be devoted to professional study.

University of Pennsylvania.—The report of the provost of the University of Pennsylvania for 1901–2 contains the following concerning the length of the college curriculum:

The matter of chief general interest, so far as the colleges and universities are concerned, appears to be the length—or rather the shortening—of the college period. The views upon this subject are so discordant as to leave the question in a chaotic condition, and each institution does what it deems right from its own point of view. Undoubtedly the success of each is the result of the belief which each institution has that its way is the best. The University of Pennsylvania has not believed that a young man of 17 or 18 is the most competent judge of what is best for him, and has therefore for some years taken groups of selected subjects as the main basis of election. During the year under discussion the academic council of the college agreed with unanimity to make possible the giving of the degree in three years in the courses in arts and science, in finance and commerce, and in biology. I need not refer in minute detail to the arrangement under which this plan has been authorized. In general, it may be said that, in the three courses stated, the student who can successfully complete, by devotion to his work, the four years of study in three years will be permitted so to do. On the other hand, a student who wishes to arrange

the work now comprised in the four years' course may prolong, upon a systematic schedule, this work to five years. In brief, the normal four years' course may be abbreviated to three years in the case of such students as show themselves able to do the four years' normal course in one year's less time; or it may be prolonged to five years, when a student prefers, for reasons satisfactory to the dean or to his committee, to devote five years to his college work instead of four.

It was announced that these options would go into effect with the year beginning September 1, 1902, a year to be reviewed in a future report, but it is interesting to know that about 90 per cent of the students have chosen the full four years' course.

Brown University.—The practice of Brown University is thus stated by President Faunce in his report for the year 1901–2:

The question whether a student of sufficient ability should be allowed to complete his entire work in less than four years our faculty has met by allowing a student, if competent, to complete his work at the end of three years. If he fails to complete it then, he is not at liberty to do partial work in the senior year, but must take his full fifteen hours a week through his fourth year. * * * But if one at any time during his senior year completes the work required for the A. B. or the Ph. B. degree, then the work he does during the remainder of the year may be counted toward the degree of master of arts. It thus becomes possible for a student by taking extra studies to do four years' work in three years and obtain his bachelor's degree at the end of the third year; or, even if he fails in this, to do five years' work in four years and obtain his master's degree at the end of the fourth year.

Cornell University.—That the authorities of Cornell University are not in favor of a reduction of the period of residence required for a bachelor's degree is shown in the following extracts from the report for 1901–2 of President Schurman:

But, while the university refuses to reduce the A. B. course from four years to three, it does permit juniors and seniors, who intend taking subsequently a professional course to anticipate one year of such work as a part of the A. B. course. The question has been raised whether, in such cases, the A. B. degree is given on the ground that the candidate has studied four years or that he has taken certain studies (arts and sciences) though for three years only. And the suggestion has been made that the subjects which juniors and seniors are permitted to take in the professional schools should be restricted to those which might be regarded as constituents of a liberal culture. But a university which allows its students to elect freely among languages, literature, philosophy, history, political science, mathematics, and the physical and biological sciences for the A. B. degree will meet great difficulty in applying the criterion suggested. Perhaps the best solution of the theoretical dilemma which has been raised is to recognize frankly that the privilege of doing a year of professional work as a part of the A. B. course, which juniors and seniors now enjoy, is a favor extended to candidates who study at a university six or seven years, and there is no reason for shortening the course of candidates whose studies cease on the receipt of the A. B. degree.

The practice of permitting students in the A. B. course to devote one of the four years of study to work in the professional colleges has been under consideration by the faculty of arts and sciences, and though no action has yet been taken it seems safe to predict that if any change is made it will not be the general reduction of the time required for the A. B. degree from four years to three nor yet the withdrawal of the privilege now enjoyed by students taking both the A. B. degree and a subsequent professional course of shortening the time prescribed for both by one year.

Columbian University, Washington, D. C.—A marked step in the shortening of the college course was taken by the trustees of Columbian University in an ordinance adopted in 1902. It provides for the granting of the bachelor's degree at the end of three years, and to fulfill the requirements of the third year the student will be allowed to elect the first-year studies of a professional or specialized course of study. The provisions of the ordinance relating to the course of study are as follows:

ARTICLE I.—*Division of work.*

The educational work of the university shall be divided into four groups, as follows:

SECTION 1. General culture courses. The subjects of study in these courses shall be prescribed or approved by the university council, with a view to the needs of graduates of the best high schools.

SEC. 2. Specialized courses in university subjects. These courses are designed to give a knowledge of the evolution and science of each subject and to fit the student for literary, professional, scientific, and industrial pursuits.

SEC. 3. Original research. This division is designed to promote original research and direct the efforts of students who desire the assistance of a master.

SEC. 4. Professional schools. At present there shall be schools of law, jurisprudence and diplomacy, medicine, and dentistry. Technical schools may be established, but at present work done in designated schools of this class shall be recognized by the university and proper credit given therefor.

ARTICLE II.—*University subjects.*

SECTION 1. For convenience of statement these subjects are grouped under six general heads:

(1) Philosophy; (2) language, linguistics, and literature; (3) mathematics, pure and applied; (4) science, natural and physical; (5) history and political science; (6) engineering and architecture.

ARTICLE IV.—*Development of university subjects.*

SECTION 1. Subjects shall be divided into three sections, as follows:

(1) The fundamental section, covering two years' work; this section to be assigned to students in the general culture courses.

(2) The advanced section, not exceeding three years; this section to be assigned to students specializing for literary, scientific, professional, or industrial pursuits.

(3) The original research section; this section to be assigned to students pursuing a subject for discovery and broader culture.

ARTICLE VI.—*Courses of study.*

SECTION 1. General culture courses for the first two years of study for candidates for the degrees of bachelor of arts and bachelor of science shall be arranged by the university council and printed each year in the bulletins of the university.

SEC. 2. The university council shall determine the minimum hours of class-room work required in the three years for the bachelor's degree. * * * The scope of the general culture courses and the amount and standard of the work required in the three years shall be sufficiently high to make the degree equal in value to like degrees of other universities of the first rank in the United States.

SEC. 3. A student who has taken his bachelor's degree shall be entitled to credit for one year in his special or professional course, provided he has taken for a part of his third year for the bachelor's degree the first year's work in such special or professional course.

SEC. 4. The university council shall also arrange courses of one year each to be the fourth year in university studies, leading to the degree of master of arts or master of science, and the university council shall also arrange courses leading to degrees in engineering.

ARTICLE VII.—*Degrees.*

SECTION 1. The degree of bachelor of arts or of bachelor of science shall be conferred upon a student who has been regularly admitted and has satisfactorily performed the work and passed the examinations required in the general culture course of two years, and who has performed the work and passed the examinations in one year of specialized work approved by the university council.

SEC. 2. The degree of master of arts or master of science shall be conferred upon a student who has performed the work and passed the examinations of the fourth year of university studies.

Tufts College.—For some years this institution has granted the A. B. degree under certain conditions at the end of three years of residence. In his report for 1901–2, the president of Tufts College has the following to say concerning the matter:

It is now nine years since Tufts College granted the privilege to students of taking the degree of bachelor of arts after three years of residence on condition of maintaining grade B as an average for the entire work. Tufts College was the first college in New England, I think, to grant this privilege in a formal way. During the period that the rule has been in operation 13 students have availed themselves of the privilege.

An even greater number than that have completed the required one hundred and twenty-eight term hours in three years on the prescribed conditions, but have chosen to remain an additional year and take at the end of the four years the degree of bachelor of arts and master of arts as well. So far the rule has worked well and the faculty has seen no occasion to regret the step. Indeed, there are many reasons for going still further and offering the degree at the end of three years simply on the basis of a satisfactory passing mark. In the first place there would seem to be no defensible reason for imposing harder conditions upon one who chooses to complete the course in three years than upon one who elects to spread the work over four years. Especially is this true in view of the pressure of the college curriculum from both sides. The requirements for admission are now so high that very few persons, even in communities where the public school facilities are of the best, can get to college before 19 to 20 years of age.

Then the demands for professional and technical training have enormously increased within the last two decades. Medical schools gradually within that time have advanced their courses from two years of six months each to three years, and from three years to four years of eight months of actual work. Dental schools have raised their requirements from two years to three years, and some, our own among the number, are now demanding four years. Law schools have advanced their requirements likewise from two years to three years. Those who are looking toward independent and professional work in either science or letters can not obtain in reputable universities the degree of doctor of science or doctor of philosophy in less than three years. The saving, therefore, of one year in passage through college is of immense importance. The undergraduate department of Johns Hopkins University has been from the beginning on a three-year basis, and the collegiate department of Clark University, about to be opened, by the provision of the will of the late Jonas Clark, making provision for the same, is to be restricted to a three years' course. So that it would seem that the opportunity at least of attaining the degree of bachelor of arts in three years is becoming more and more imperative for all the colleges.

CHAPTER XXIV.

OXFORD UNIVERSITY.

Contents.—Oxford University and the Rhodes scholarships, by W. T. Harris.—History of the University of Oxford, by John W. Hoyt.—The Bodleian tercentenary, by J. B. Firth.—Oxford University extension lectures, official circular and programme.

OXFORD UNIVERSITY AND THE RHODES SCHOLARSHIPS.[a]

By W. T. Harris.

[Reprinted from the Proceedings of the Department of Superintendence of the National Educational Association, 1903.]

One of the memorable events of last year was the offer of Cecil Rhodes, made known to us through the provisions of his will, providing for a hundred perpetual scholarships in the University of Oxford, two for each State and each Territory in the United States, a scholarship amounting to the handsome annual sum of three hundred pounds—say $1,500—to support a student for three years at the most famous university in Great Britain.

This provision was made with the noble purpose of bringing about a more intimate and sympathetic acquaintance between the most influential class of citizens in the English nation and the people who have gone out from it in past times and founded an independent nation on the basis of constitutional liberty and local self-government. In the words of his will, "the union of the English-speaking peoples throughout the world" impelled him to make this endowment. He desired "to encourage in the students from the United States of North America, who will benefit from the American scholarships, to be established, for the reason given, at the University of Oxford under this my will, an attachment to the country from which they have sprung, but without withdrawing them or their sympathies from the land of their adoption or birth."

As a guide to his trustees in the selection of incumbents of these scholarships, Mr. Rhodes mentions four qualifications: first, literary and scholastic attainments; second, fondness for outdoor sports; third, unselfishness and good fellowship; and lastly, moral force of character and zeal in the performance of public duties.

All good people will respond with a hearty spirit of cooperation to so noble a project, and we may well consider what it signifies and what are the conditions of its successful management.

The past three years have been noteworthy, in the history of industry and finance, for the development of productive industry. Pari passu with this has gone on the taking possession of the resources of nature, and the increase of the assets of civilization—wealth in mineral, vegetable, and animal productions; natural forces have been harnessed for the use of men, lessening distances and removing obstacles to communication by land and water. Never before has the potency of capital been so

[a] The educational provisions of Cecil Rhodes's will are given in the Report of this office for 1901, chap. 47, pp. 2447-2450.

awe-inspiring. To name in one word the function of the great process going on, one would say that it is the removal of the middle man, who effects exchanges, to the function of the end man, who is direct producer or direct consumer. By saving in the middle term of cost of manufacturing, transporting, and distributing there comes to be an enormous accumulation of capital. After apportioning to the producers and consumers their quota of the benefit derived from reducing the expense of the middle term, the owners of capital have for many years made large gifts to education.

The names of Tulane, Johns Hopkins, Cornell, Leland Stanford, Drexel, Vanderbilt, Sophie Newcomb, Vassar, Wellesley, Smith, Yale, Chicago, and Harvard come to our minds as the leading colleges recipient of endowments.

For the year 1899–1900, gifts for higher education amounting in the aggregate to $11,995,463 were reported to the Bureau of Education by the several colleges and universities. For the year 1900–1901 the gifts amounted to $18,040,413. For the year 1901–1902 thus far the gifts reported amount to $16,989,967. Not all of the university reports for 1902 are in.

The Carnegie gifts for libraries and other institutions have been estimated at the following: For 1895, $1,000,000; for 1898, $310,000; 1899, $3,370,000; for 1900, $5,065,000; for 1901, $30,243,500. Counting in his gift for the Carnegie Institution in Washington, his grand total of gifts in the United States is estimated at $52,270,173. Besides this his total for Canada, Cuba, England, Ireland, and Scotland amounts to $15,000,000 more.

This enormous increase in gifts to education incident to the amassing of capital is of special interest to this consideration of the Rhodes gift, by reason of the fact that the application of capital to the increase of wealth is a process somewhat mysterious to the common mind. Karl Marx's formula *C-M-C*, commodity—money—commodity—or the producer exchanges the commodity which he has created for money, and with money procures the other commodities which he wishes for use, states the first and obvious economic process (in a formula *C-M-C*); but the middle term, money, when expanded, comes to mean the market, and the market has a different function from *C-M-C*, or commodity—money—commodity—namely, it starts with *M*, or money, and buys commodities, to sell again for money, hoping to increase its money by the process—earning an income by the process of exchange—and this formula is *M-C-M*, according to Marx, and in that he sees the origin of all the evils in an industrial and commercial civilization, for this is the formula of the capitalist. The capitalist as the middle term represents a stock of goods and its transportation and distribution. Without this middle term the producer can produce only what is useful to himself and not for his neighbor or for the market of the world, because there is and can be no market without this second formula *M-C-M*, money—commodity—money.

It is obvious that the profit of the market, the middle term, is greater when its own expenses of collection and distribution are diminished—and when this is done on a large scale, say by gigantic railways on land or ships on the sea, great economy is secured, and there are large savings to be distributed, partly to the producer of raw material, partly to the manufacturer, and partly to the consumer, and a large dividend left for capital which supports the world market.

Things without use can not be counted as property, and there is no object in creating a surplus of goods that can not be used. To transport things from a place where they have no use to a place where they are needed is to produce value; and, as an actual fact, by far the largest portion of the final cost (to the consumer) of the commodities that in the aggregate constitute wealth derive their value from the two services of the market, namely, the collection and the distribution of commodities—the function of the market (*M-C-M*) so strangely misunderstood and suspected by Karl Marx.

But the market collects its toll from the consumer. It shares with the producer the total amount received from the consumer. The market causes competition, and competition reduces the producer's profit, and also the profit of the market. The less the charge of the market (that is to say, the middle man), the efficiency of collection and distribution remaining the same, the greater the profit to the end men, that is, to the producer and the consumer.[a] It is obvious that the increase of the efficiency of the market and the diminution of its charges indicate economic progress. It is in the line of the reduction of the necessary labor to conquer nature. The production of the raw material, its collection, its manufacture, distribution, and consumption, require less expenditure of human labor, or of its representative, which is money.

From this point we can see the significance of this great movement of capital in our times which diminishes the number of middle men and transfers them to the function of end men, that is, producers and consumers. It is the aim of every combination that capital makes to reduce the expenses of exchange, give the producer a higher reward, and share with the consumer by lowering the price of the finished product to him. For the performance of this function capital collects its tithes. It gets perhaps a tenth of what it saves, distributing on an average the other nine-tenths to the producers and the consumers.

In our day the enormous aggregates of capital are hastening forward this beneficent process with ever-increasing speed. It is, of course, out of place to consider here the fact that so important and radical a transformation as results from this great process necessarily involves much evil and much suffering to the human beings that are forced from the place of middle men to the place of end men. All readjustment of vocations involves inconvenience, and sometimes suffering, and even injustice.

But we may remark that if a new investment of capital pays well for a while, it is constantly attacked by newer inventions and newer combinations which, being more economical than the old—that is to say, needing fewer middle men—cause the old investment to pay less and less interest to the capital. Old investments, therefore, in capital are obliged constantly to divide with new combinations, and the producer and the consumer—the end men—finally get all the profit. The inventions of fifty years ago are nearly all now the property of the community at large.

Returning to our theme, endowments for education, we see what significance there is for the future of civilization in this accumulation of capital. For its accumulation stimulates the work of prospecting for natural resources, not only the home resources of the great nations, but the resources abroad in the world at large—the possible resources of all lands. Witness the acquisition of the oil lands, the deposits of gold, silver, and diamonds, the ore deposits of useful minerals—coal, iron, copper, and tin—wherever they are. Apparently the era has arrived when the possibilities of food producing which belong to the tropics—to the Amazon valley, for instance—shall be first capitalized, and after that made tributary to the populations of Europe by a vast commercial stream of merchandise consisting of cheap elements of food and textile fabrics and lumber. On reflection one sees the vast possibilities of raw material are more likely to be soon utilized if they come into the possession of great stock companies than if they belong to private owners. Great companies see to it that there are provided all the necessary means of production and of transportation to the best markets.

The era of the creation of capital is also the era of endowment of higher education. Higher education is becoming more and more a process of research and original investigation. And it is the experts furnished by the instruction of the laboratory

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and the seminarium that are most needed in the work of prospecting for the natural resources and in the work of transporting and manufacturing.

There has never before been so much wealth created in the form of inheritable goods and chattels—wealth of a permanent kind that goes down from generation to generation, relieving the people of the future from the work of creating a plant of some kind or other—railroads, bridges, tunnels, waterworks, schools, and libraries. These and the like items of inheritance add a permanent contingent to the wealth of the future by their annual earnings and swell the income of after generations.

In the midst of this economic change our population is called to new objects of interest and new duties. In 1880 the national census indicated the arrival of a population of 50,000,000. At that time we began to ascend above the horizon to the great powers of Europe. Twenty years later our call to active participation in the control of the world which is exercised by the great powers has become so apparent that all see the necessity of forming a special class of experts who are to become familiar with the national purposes and ideals of such nations as Japan, Russia, Germany, Austria, France, Great Britain, Italy, Spain, and Holland. Foreign diplomacy will furnish a great field for the employment of a larger and larger class of American citizens, and the most successful among these will be recruited from the ranks of those who have made studies at the universities in those foreign countries and become familiar with that class of their population which furnishes the directive power. It is natural that each nation throws its influence in favor of the perpetuation of its own institutions in the world council of the great powers. It is, of course, necessary that the United States shall have an influence in the great council of the world, favorable to the preservation of our own national idea of local self-government and productive industry.

The Rhodes bequest comes opportunely at the beginning of this epoch of training our citizens for diplomatic influence abroad, for of all places for training diplomats the first one in direct usefulness is the University of Oxford. The offer of constant residence in that great English university to one hundred students from the United States will afford some of the best preliminary training for the experts required in our consulates, embassies, home cabinets, and international commissions.

Oxford is the English school for gentlemen. A typical English gentleman is a peculiar product, somewhat different from the ideal gentleman of France or Germany, or of any other country in Europe. An American would suppose, on first hearing of the English gentleman, that he must be a person very sensitive as to his caste—as to his wealth or nobility by birth, or by official position—and continually making demands for recognition, and that in his ordinary actions he is likely to imply a consciousness of his superiority in wealth or birth or official station. No greater mistake could be made. Of all people in Europe the Englishman is the most apt to see that any such manifestation is vulgar, and any consciousness of or self-assertion of caste is marked at once as a gross violation of the code of the gentleman.

Both universities, Oxford and Cambridge, have been long famous for their function in training youth in the principles of good breeding. This is especially true of Oxford. A rich man's son who comes to Oxford with conceits founded on the wealth of his family is made to feel very soon the difference between the ideal of the English gentleman and his own ideal. In most cases a three-years' residence will modify his character in this respect, so that he will come to avoid ostentation either in his clothing or other belongings, or in his manner toward people not wealthy. So, too, the scions of nobility. In all well-established houses the private tutors and governesses have already trained the young nobility, before they come to Eton or Winchester, in the code of English politeness, and they have not so much to learn in this matter at Oxford. But any youth from a noble family who has not already received this training is likely to learn the lesson so well in his residence at Oxford that it will become a second nature to him to stand on his humanity

two-hours' ride another gentleman entered the railway carriage at Perth, quite as simply dressed and quite as urbane in his manners as the first. He entered readily into conversation with our commercial agent and his companion traveler. In the course of the morning they arrived at the station where passengers leave the train for Blair Athole. Here the second gentleman left the coach, and our commercial traveler took note that a splendid carriage with a train of lackies were in waiting for him, and he asked, with some haste, his companion: "Who is that man that just left our coach?" "Oh," he said, "that is "His Grace the Duke of Athole." "Indeed," said our commercial traveler; "he was very condescending to talk in such a friendly and genial manner to two cads like us." The remark was cordially assented to by his companion. In the course of the journey to the north they arrived at a station, where the first gentleman left the coach, and an equally imposing train of lackies with a fine carriage awaited his arrival. If our commercial traveler had been astonished on the first occasion, he was astounded at a second incident of the same kind. He approached the guard or conductor of the train and asked him: "Who is that man that just now left my coach?" "Oh, that is His Grace the Duke of Southerland." Our friend, wishing now to probe the case to the bottom, fearing that he should make again a similar mistake in judging greatness by aristocratic manners and fine clothing, said to the guard: "And will you pray tell me who are you?" This manifestation of common humanity and the desire to be of service to one's fellowmen is the real tower of strength of the true English gentleman.

But Oxford trains not only the aristocracy of wealth, birth, and official position in these matters of ostentation, but it also trains the great scholar, the person who has achieved distinction in letters, or science, or art, making him conscious that it is vulgar to show in any way a consciousness of superiority or to advertise in any way what one has done to distinguish himself.

One reads in the apprenticeship of Goethe's Wilhelm Meister the studies which Goethe made on the difference between the born nobleman and the distinguished but not highborn citizen. In the one case the person is content to be, and never lets his possession either of culture or wealth or of great deeds appear—for that, he feels, would degrade him. To be a nobleman is sufficient for him, whereas the ordinary citizen stands on his achievements and finds it difficult to forget these (or to forget his *havings* in his sense of *being*). He must rely upon his possessions, and he is likely to make them obtrusive.

Our country, the United States, belongs to the vast regions of the world which may be called border lands. In the border lands there are found the most active processes of transformation. A synthesis is in progress between different nationalities. The raw materials of commodities, mineral, vegetable, and animal, are being gathered and worked over for transportation to the central emporiums—Paris, London, New York. On border lands the human spirit is fullest of hope and courage, because it sees from day to day and week to week the wilderness conquered for human purposes and for civilization. But the frontier is the most unstable and variable region of civilization. Its institutions are less firmly established.

In the times of King Alfred, and earlier, Oxford was on the borderland of Wessex, between it and Mercia on the north. Mercia, as its name indicates ("mark" or "boundary"), was the border land between the Anglo-Saxon kingdoms and the British tribes which, driven into the fastnesses of Wales, sullenly resisted the encroachments of the Teutonic wave of migration. Oxford was a fording place, shallow enough to allow herds of oxen and other cattle to be driven across without too much danger of loss by the flood. The Cherwell and the Isis united here, forming the Thames, and spread out in shallow reaches separated by islands. We may conclude that the place was on the line of trade which Besant speaks of in his book on West London. This commercial route led on its way to Dover through Westminster, the lowest ford on the Thames, much used before London Bridge was built in the fourth

century. In Oxford, of course, was a mart or market, and, after Christianity came to the Saxon, some religious houses were built there as early as 727 A. D., and with religious houses there came scholastic learning.

Wherever the Christian church went in Europe there was created an interest in the history of the religion of the Bible and in the history of Roman nationality. We do not forget that the history of Rome was for six hundred years practically the history of the world, the six hundred years including one century before and five centuries after anno domini. Hence in the monasteries of Britain, France, and Ireland there was more or less interest in regard to the history of the world and the dealings of God's providence with mankind. St. Augustine, the bishop of Hippo, said in his great work The City of God that "the world and its history is a sort of antiphonic hymn, in which God reads his counsels, and the earth and man read the responses." Those inclined to learning among the Christian monks all over Europe studied Orosius, the disciple who had been induced by St. Augustine, his master, to sketch a general history of mankind in the spirit of his view that made it an antiphonic hymn. This is noteworthy in our inquiry as to Oxford, because King Alfred the Great, king of Wessex—Oxford was in Wessex—translated the history of Orosius into Anglo-Saxon, so that it could be read by the laity as well as by the priesthood. But not only did Christianity take this first rational view of the world-history, but it also collected and prized certain elements of world knowledge. It had the trivium and quadrivium, of the seven liberal arts. The scholar and philosopher Boetius nurtured in the latest years of the Roman empire and the early years of the reign of Theodoric, the Goth, who held all Italy in order by his firm hand—Boetius has in his Consolation of Philosophy described the contents of the trivium and quadrivium, giving a brief résumé of the insights which formed the learning as to nature and man—another work that Alfred translated into Anglo-Saxon.

First, there was grammar, considering not only the structure of language, which reveals human nature in general, as will, intellect, and feeling, but also literature; then, in the next place, logic, which reveals the structure of the pure intellect; and, thirdly, rhetoric, which reveals the process by which ideas are made into feelings and convictions and result in deeds. These three constitute the trivium. Then there was arithmetic, including the science of numbers and what was known of analytical mathematics in the form of algebra. They had not yet discovered the works of Euclid, and what was called geometry in the quadrivium was an abridgment of the work of Pliny on geography. Music and astronomy complete the four branches of the quadrivium; music, relating not only to what we call music, but also and chiefly to poetry, art, and such matters as are found in the part of grammar called prosody; astronomy, relating to the facts and theories regarding the movements of the visible bodies of the heavens, the changes of the moon, the seasons, the climate, Meteorology, and the like. These elements of knowledge were more or less studied by the intelligent and influential monks. Of course, religion was the main interest, but these other matters were not entirely neglected, and there were some places in those early Christian countries where considerable attention was given to them.

As a matter of course, the Teutonic countries had to learn, besides their native tongue, the Latin language. It was a study of the language that had been rendered capable of expressing subtle thoughts of all kinds. Latin had become a sufficient organ for the description of the facts then known of Europe, Africa, and Asia, and its study opened up the world to the provincial youth who had left the narrow circle of his home to join the monastery which formed a ganglion in the great spiritual nervous system that contained the intellectual brotherhood of the world. Slender as was the store of human learning, it held in germ all that has been unfolded since. It was taught at Paris, Cologne, Metz, Bologna, Winchester, Oxford, Cambridge, Ely, St. Ninian's in Galloway, St. Columba on the island of Iona (north of Argyle-

shire) in Scotland; St. Cuthbert's holy island, Lindisfarne, on the northeastern coast of England; St. Peter's, south of the Tweed, in Scotland—to name only the places which come to mind, without attempting a careful list.

It is certain that monastic education had gone on for centuries at Oxford before the foundation of the first college, in 1249. It seems that the nunnery of St. Frideswyde was founded there in 727. Edward the Elder, in 912, soon after Alfred died, took possession of Oxford and made it a fortified city as a defense against the Danes.

History records that Vacarius, professor at Bologna, lectured at Oxford on the Roman civil law in 1149, less than fifteen years after the discovery of the Pandects of Justinian and only eighty years after the Norman conquest; and it is well argued that this implies a European reputation already achieved by Oxford University. Evidences multiply from that time on of the existence of important schools at Oxford.

The first college, which is called University College, was founded in 1249, and there were two more before 1300, namely, Balliol and Merton; four more in the following century, 1300 to 1400, the century of the beginning of English literature, with Chaucer, Gower, and the author of Piers Plowman; these four colleges were Exeter, Oriel, Queen's College, and New College; in the next century (1400 to 1500) three more colleges—Lincoln, All Souls, and Magdalen; and in the century of the Reformation (1500 to 1600) there were six more colleges founded—Brasenose, Corpus Christi, Christchurch, under Henry VIII; Trinity and St. John's, under Queen Mary; Jesus College, under Queen Elizabeth. Two colleges—1613, 1624—were founded under King James, namely, Wadham and Pembroke colleges. Worcester College, founded in 1714, is the only one of the eighteenth century. In recent times Hertford College, St. Edmund's College, and Keble College, in the nineteenth century, make up the twenty-two colleges in the corporate body of the University of Oxford.

The college is the characteristic of Oxford and Cambridge, for the college collects within its walls anywhere from a dozen students up to something over three hundred. Of the twenty-two colleges in the University of Oxford, four have over two hundred students and twelve between one and two hundred, and the remaining six have less than one hundred each. Merton is sometimes called the oldest college, but it was founded in another town and removed to Oxford about 1270. Merton College is the first one which erected dormitories and study halls, a refectory and a chapel, surrounding the whole by a college wall with only one gate for entrance. A new step was taken with the foundation of New College, in 1370, by William Wykeham. This step consisted in the separation of preparatory students from the regular university students. The school at Winchester furnished the preparation, and New College contained only those students who were fitted to take up and to go on immediately with the university work. Other new departures are mentioned; one in particular was the founding of Corpus Christi, in the early part of the reign of Henry VIII—a new beginning, because it made so much more provision for the modern studies that had come into vogue with the revival of learning, particularly the study of Greek and of mathematics.

In America there prevails class feeling, but in Oxford the college feeling predominates. The small group of students living within the walls of a given college form a sort of family or monastic community, bringing together the older students and the younger ones, so that the unit is the college and not the class. It is better adapted than the American plan for the production of the type of gentleman which we have been discussing. The older students have much more influence on the younger students.

All books on Oxford tell us about the two courses of study—the easy one, called the "pass," adapted to the students who desire the social culture of Oxford, with its athletics and good fellowship, and no more of its erudition than is necessary to pass

examination for its degree of bachelor of arts (master of arts is given in course to all bachelors who have been enrolled twenty-seven terms and who have paid the fees). This course of study shows in all its parts the influence of the trivium and quadrivium—especially the branch called "music" or "prosody," in the insistence upon the study of the quantity of Latin words—the writing of Latin poetry.

Besides the "pass"-examination for the minimum scholarship, there are courses of study for honors. The honor schools are eight in number: (1) English language and literature; (2) literæ humaniores—modern philosophy and logic and grammar—called "greats" (opposed to "greats" "responsions" are called "smalls"); (3) mathematics; (4) jurisprudence; (5) modern history; (6) theology; (7) oriental studies; (8) natural science.

The design of the honor examinations is to afford the fullest scope for scholarship—specialization and thorough research being required. The honor school in literæ humaniores is most sought and highest prized. The chief branches of study in that school are Latin and Greek, ancient history, logic, ethics, and philosophy.

The entrance examination, which is called "responsions," is passed some time in the first year of residence, and is not required before matriculation, as in American universities. The second examination is called "moderations," and comes in the second year of residence, about the middle of the undergraduate course. The third and final examination takes place in the last year. Three subjects must be offered[a] for the "pass."

One of the facts that excite surprise in an American student at first is the short period of residence required in Oxford each year. There are three terms, each of eight weeks—Michaelmas, beginning the first Monday after October 10; Hilary, on the first Monday after January 14; Easter and Trinity, beginning on the second or third Monday after Easter Sunday—twenty-four weeks of residence (which may be reduced to eighteen weeks) and twenty-eight weeks of vacation, the long vacation, ending about October 10, being sixteen weeks, and the other two vacations six weeks each. A greater surprise is created by learning that the hard work in scholarship is not expected so much at Oxford in term time as in the vacation. The demands of athletics and social functions at Oxford during term time are too severe to permit the hard study necessary for great success in scholarship.

Athletics is perhaps the most prominent feature in Oxford life. Boating leads; next come football, cricket, and golf; next, running, walking, cycling, etc. There is much literature regarding this phase of English university life.

The hours for exercise are between lunch and tea—1 p. m., 5 p. m.; that means that games begin usually at 2.15 or 2.30 and stop at 4 p. m., except in case of cricket, which goes on till sundown, or till dinner time when the days get longer. "Lunch is usually a very spare meal, often being simply dessert with bread and something simple to drink. Similarly tea is simply one cup, especially if a man is wanting to keep in good form both for exercise and for dinner at 7 p. m."

Oxford has solved the problem of making athletics develop nervous force instead of nervous dyspepsia by its care to give its two hours in the best part of the day to systematic exercise and guard it against encroachment on the time needed for digestion of the chief meal of the day.

It would seem best that our candidates for the Rhodes scholarships should all have obtained a preparation in scholarship amounting to that required for the A. B. degree. But it is obvious that it was the intention of Mr. Rhodes himself to have the benefits

[a] (1) Classic languages (2) mathematics; (3) modern history; (4) the Bible. Those with affiliated subjects form four groups, within which there may be selection for examination of one or more of four subjects of the classic group, one or more of the five subjects in the modern group, one or more of the seven subjects of the mathematical and scientific group, and one of the religious group. It is compulsory to choose one foreign language, ancient or modern, and to have some portion of the Old or New Testament (with Greek) and the elements of religious knowledge, and another subject from mathematics and science, or from moderns, or from classics.

of his bequest reach graduates of the secondary schools, though the provisions of the will give authority to the trustees to modify the bequest, if in their opinion a modification will make the grand purpose of the will more effective. I have found myself obliged to come to the conclusion that any and every attempt to fill the proposed scholarships from graduates of our secondary schools, or indeed even from college students of attainments below the degree of bachelor of arts, will fail to realize the expressed wishes of the testator. In the first place, there is not a sufficient maturity of mind on the part of graduates of our secondary schools to profit by the exceptional opportunities of Oxford, nor is there any considerable degree of maturity until entrance upon the third year of the American college or university.

Now, the chief difficulty with the immature student from the United States will lie in the fact of his sensitiveness to criticism and of his readiness to fall back upon what he believes to be his rights. While the criticism of his fellow-students at home actually prevails with him because there is no appeal, yet in a foreign university he will, if possible, reenforce his cause by an appeal to the importance of his State or to the importance of his nation. The candidate, if appointed by a State authority—say, a governor—or by a national authority—say, the President, or a board chosen by him—will feel himself in some sense a representative of his State or nation. This form of conceit will be more likely to take root in the mind of the immature student than in that of the holder of a bachelor's degree. It is needless to say that such a conceit in any form would be so offensive to his fellow-students in a foreign university, and to the authorities of such an institution, as to make his residence there impossible.

The Rhodes trustees have been fortunate in appointing as their agent Dr. George R. Parkin, whose wide experience in English-speaking communities within and without England has admirably fitted him to the work of adjusting the details of arrangements for filling our quota of these Rhodes scholarships. If the matter of primary selection and nomination of a list of candidates be left to our college presidents, this will be best. But certainly the final selection from the list nominated should be determined by an examination conducted by an Oxford "don," who should visit this country for the purpose annually and hold examinations at convenient points in the several States. The examination should be in place of "responsions," for the students chosen must be sure of their qualification before the serious undertaking of the long journey and large outlay of money necessary to reach Oxford.

It is admitted by all who are acquainted with the present and past of Oxford that it has fulfilled the function of educating the English gentleman. It has had the effect of creating a democratic code of manners and of securing its adoption by the sons of the powerful families in the Government and by the heirs of nobility. I have already discussed sufficiently this code. It has made it one of the distinguishing characteristics of the English gentleman that he never mentions his titles, or the influence of his family, or his wealth, or his literary productions, or any services of his to his nation or to his fellow-man. He holds his tongue under a severe restraint, and has learned to do this without the appearance of restraint. Not only Oxford, but other English institutions, are powerful in creating in the mind of the youth an ideal of good form in this respect; but Oxford is by far the most potent factor in this influence.

But there is another phase of this matter to be considered: Good form includes also the code of etiquette, established from time immemorial, which gives precedence in a certain fixed order to the members of the nobility, to the dignitaries of the national church, and to the elected or appointed representatives of the English commonalty, settling in advance the rank due to each order in all ceremonials. This recognition of fixed rank and position must be observed as an indispensable form of gentlemanly courtesy in such matters as the addressing of letters, or in personal allusions in a speech, or in a written communication, etc. It is a characteristic of

English good form that it makes a code of limitations for each class of people—the nobleman or other gentleman, the tradesman, the servant, and the common laborer. Each one not only observes carefully the proper manners toward his superior, but he is careful to expect and to exact the proper etiquette from those beneath his station. The most refined gentleman will not himself make a personal matter of the neglect of courtesy, but the class to which he belongs or moves in will take care of this matter on his behalf, and this, too, effectively.

On the whole, the code of the English gentleman has in it what is considered the most admirable the world over as belonging to polished manners. I have tried to show that these traits give the person a certain superiority in diplomatic councils, in statesmanship, and in social relations. While this is the case with the individual it is not so with the class influence which supports and makes valid on occasions the aristocratic prestige or pretence which underlies the condescensions and the reservations of the Englishman's manners. For the very reason that the English gentleman takes none of these upon himself individually in his own behoof, but only as a member of his caste or class in behalf of some other members of his class, the foreigner, not prepared in advance for this phase of English life, is apt to feel himself baffled even to exasperation. He finds himself unable to right himself. He meets only personal courtesy and democratic simplicity in individuals, but he finds himself proscribed by a caste. To attack this caste barrier is to meet an ignominious defeat without any ability to set oneself right.

It must be admitted that what is very noteworthy and impressive in English society as a whole is more or less to be met with in some degree in all social circles of Europe, and indeed of America, and it must also be admitted that the English form is more highly refined because within it the individual preserves his democratic cordiality of manner, calmness of demeanor, and careful observance of all the requirements of courtesy due to an individual from his equals.

In the new epoch that is upon us now we are compelled to come into foreign relations. We can not choose but take part in the councils of the great powers which determine in the aggregate the course of present history; we must have our say—have an influence in international decisions, and an influence that will be proportionate to our strength in population. But for all this there is need to provide sufficient skill.

Here is the important point: We must educate hundreds of our scholars and politicians in studies of jurisprudence and international law; we must have a corps of trained specialists who know the minute details of each great nation's past history and present achievements—Great Britain, Germany, France, Russia, Austria, Italy, Spain, Holland, and the Scandinavian countries.

The Rhodes bequest is the most timely of gifts for higher education, because it gives opportunity to begin this education of that class of our population which will furnish our consulates, our home offices, and our embassies with attachés. Out of the most successful of these will come by and by our foreign ministers and our home experts in diplomacy.

England is the best place in which to begin this work. The excellence of the University of Oxford is without doubt the training of the ready gentleman who can not be pushed off his feet by an attack directed upon the weaknesses of his personality. His training at Oxford gives him that secure self-possession and self-respect which commands the respect of his fellows.

Our American students need have no fear that they will lose their nationality at Oxford, for they will find the English ideal of a gentleman exactly fitted for Anglo-Saxons everywhere.

The more perfectly they accept its training in this regard the more ready they will be for the great work of extending our American influence in the councils of the world.

HISTORY OF THE UNIVERSITY OF OXFORD.

By Hon. JOHN W. HOYT, LL. D.

I.—ANCIENT AND MEDIÆVAL OXFORD.

To an early period of the Middle Ages, a period only later than Bologna and Paris, belongs the origin of the University of Oxford. Legend has vainly tried to fix a date that would make it the earliest of all the universities in Europe. Years have been spent and volumes have been written to prove that it had its beginning with the great Alfred. Indeed, there were writers who went yet further, making Alfred but the restorer of what had been centuries before his day; and he died in 901. Even Huber, whose reliability was once beyond even the thought of question with many, concluded his extended labors in this field with these emphatic words: "Any further doubts as to the founding of scholastic institutions [the University of Oxford included] by Alfred ought to be relegated to the region of unhistorical and barren skepticism and negation, and be neglected accordingly." Schaarschmidt not only held the same view, but was able to satisfy himself that the famous school existing at Oxford even in the early Saxon days was far beyond anything found there in the twelfth century.

Prof. S. S. Laurie, of Edinburgh University, in his discussion of "Mediæval education and universities," calls attention to the fact that Oxford had gained such importance during the first half of the twelfth century that in the third decade Robert Pulleyne returned from Paris and endeavored to restore the teaching of theology, and succeeded in infusing a higher spirit into the Oxford school. He further states that in 1149 Vacarius lectured there on civil law, but King Stephen and the church objected to civil law, and nothing came of Vacarius's venture; after further discussion, he says: "Accordingly we may conclude that Oxford was entitled to the name 'universitas' about 1140." By which, of course, he meant that, having so built herself up as a school of arts that there had been actual attempts to establish professional faculties of theology and civil law, she might, without too great a strain of courtesy, be allowed the use of a title beyond her real status.

Notwithstanding all these and other like claims, after the most thorough sifting of the evidence it is the opinion of Rashdall[a] that the year 1167, or a little later, was the date of what may be considered a proper beginning of the "studium generale" at Oxford—that being the date of migration of a multitude of English students from the University of Paris, where it is said they had been found in larger proportion than those of any other nationality; many of them, moreover, well beneficed, and not a few of them well advanced in the higher studies. This extraordinary migration from Paris came probably from the quarrel between Henry II and Thomas à Becket, Archbishop of Canterbury, on which account the latter fled to Paris, where there were many hundreds, if not even thousands, of English students, together with numerous masters, upon all of whom he might have been in the way of exerting an undesirable influence. Be that as it may, the University of Paris certainly had a much larger proportion of English students than of any other; and, for reasons of his own, the King ordered them all back to England, under pains and penalties that could not be ignored. Rashdall's opinion is that the repatriated students resorted to Oxford. Had there been an important beginning of a school of high grade elsewhere in England, it would doubtless have been the rallying point instead of Oxford. There are also other facts that, with some reason, have been assigned for the early choice of Oxford as a university seat, these, namely: That Oxford was central, as well as on the border between Mercia and Wessex, the two most important subordinate portions of the Kingdom; that it was at that point on the Thames where the stream spread into

[a] The Universities of Europe in the Middle Ages, II, 329.

several channels; that the place was within sufficiently easy reach of London and of the Continent, and that it was in a productive region, where supplies were cheap; besides which, masters and students in large numbers were already there.

Passing all these questions, once so troublesome to historians, it may be considered equally beyond doubt that ere the end of the twelfth century the University at Oxford had attained to considerable importance; that as a studium generale it then stood alone in England; that, although several of its halls were destroyed by fire in 1190, it was authentically spoken of soon after as being so full of students that the city could hardly hold them, and that important beginnings had been made in the study of both the civil and the canon law, Vacarius being its leading teacher in the civil branch.

It is also a well-established fact of history that Oxford made a great gain in the number of her students in consequence of a serious fray between the students at Paris and the provost of the city and his archers in 1229. Laurie is an authority for the statement that the university, by way of resisting what it considered an outrage, practically broke up, leaving its students to migrate "to Orleans, Angers, Rheims, and other towns, where teaching was conducted and degrees conferred independently of church or king." In harmony with other historians he further says that "Henry III of England seized the opportunity to invite the dispersed scholars to the rising schools of Oxford and Cambridge," and that they came (in considerable numbers he doubtless means) "and brought with them the university idea of studies and privileges."

It was not until about the time with which we are now dealing that the highest institutions were called universities. Originally they were known as "studia," and the title since used was adopted at about the beginning of the thirteenth century, not because they attempted instruction in the various branches of learning, but simply because they had been formed into legal communities, which in the Latin of that age were styled "universitates."

These communities or corporations of masters and scholars, moreover, although as a guild they were distinct from the townspeople, were not separated from them by living together in isolated buildings like the monks who lived in monasteries, but were scattered about in lodgings in the town, promiscuously at first, and then in "hostels," or halls, and chambers which were hired from the townsmen, as were also the "schools" in which lectures were given. The university, therefore, in its corporate capacity possessed no property in the first half of the thirteenth century. Its public business was transacted in parochial or conventual churches lent for the purpose, as there were no university buildings. The first university endowments were funds donated by benevolence to be loaned to poor scholars, and called "chests." Next, money was left for the support of masters from the county of Durham in lodgings to be provided at Oxford. The university was able to purchase houses as early as 1263 out of this fund, and then followed the foundation of the famous "colleges" themselves, whose constitution is characteristic of and peculiar to the two great English universities, each being an independent community with a separate charter, government, and endowments.

CONSTITUTION.

Speaking in general terms, the University of Oxford, as a corporate body, was known through a succession of ages by the style of "The Chancellor, Masters, and Scholars of the University of Oxford." It was finally so entitled by Parliament during the reign of Elizabeth.

Like the University of Paris, that of Oxford was also a masters' university, for there was even less of the democratic element in England than in France, and the student

body was proportionally subordinate to those who taught and to such ecclesiastical officers as the church could impose. But to what extent there was organization at that early day nobody seems to know with exactness.

We have good authority for fixing the number of students as high as 3,000 in the year 1209; when, moreover, there was a beginning of something like recorded history for the school, since it was in this year that a collision between the mayor and citizens and the students resulted in a migration of most of the latter to other places. Some went to Reading, some to Paris, and some to Cambridge, which last was strangely destined to become a copartner with Oxford in the proud honors which have attached and still attach to English scholarship.

It was at this time, in consequence of a quarrel between the students and townspeople, that Oxford was placed for quite a period under interdict of the church, which was followed by the legatine ordinance of 1214. This was punitive in character, and the punishments were administered in forms as rude and grotesque as any which mark the history of the Middle Ages. Among others there were processions of the offenders, barefoot and coatless, and the awarding of fines against the townspeople, and decreeing half rent for years to come of hostels and schools occupied by clerical students; the distribution of so many shillings annually among poor scholars, besides the feasting of them liberally "on bread and beer, pottage and flesh, or fish," etc. The immunity from lay jurisdiction, which the university still enjoys, dates from this legatine ordinance. It was finally arranged (by ordinance of Bishop Grossetête, 1243) that this complicated punishment should take the form of an annual fine, to be expended in loans to poor scholars, without interest—no small favor in the eyes of young men, who were otherwise obliged to pay 43 per cent interest to the Jewish money lenders—and, a little later still, it was provided that the moneys accruing to the university from this source should be placed in a chest at S. Frideswyde's, in which, upon receiving a loan, the borrower should make a deposit equal in value. To this chest were afterwards added others by various founders, which were made the depositories of sums given the university on condition of so many prayers being offered annually for the repose of the founder's soul. According to Rashdall, "some twenty of these chests were established at Oxford during the Middle Ages."

The Grossetête ordinance also provided for the office of university chancellor, and hence for the beginning of a more systematic general government of the schools embraced in the university. It was such a chancellorship as no other university of the Middle Ages had; first, because the office was one that properly belonged to the chief ecclesiastic attached to a cathedral; secondly, because, while copying all that pertained to the Paris University chancellorship, it was an office, not of the university originally, but of the church, and its connection with the university was at first established only because the students subject to the chancellor's jurisdiction were clerks, one and all. When his jurisdiction was extended over lay students also it was only to the extent of their subjection to the ecclesiastical courts. The law administered was the canon law. Beginning his services to the university in this high capacity, as the representative of the bishop of Lincoln, Oxford's chancellor eventually became the acceptable head over the university in all its proceedings. The masters may have early had their own ideas of regulating the affairs of the university; nevertheless, we hear nothing of statutes until 1252, up to which time custom appears to have had its sway with what was, indeed, a "rudimentary university of masters." The organization, when it came more fully, was singularly democratic. There was nothing of a one-man power about it. Serious difficulties were disposed of by the masters (in guild, now) assembled, and in extreme cases, with the help of graduate students also.

Among the provisions of what may be regarded as the constitution of the university were these: That no one should be admitted to the license in theology who had not

been a regent in arts; that masters should be sworn to observe the statutes and to a faithful discharge of duty; and that the masters, unless positive provision were otherwise made, should have the responsibility of inflicting penalties. These formal statutes were in the name of the university only, nor were they even intrusted to the chancellor for execution. He doubtless presided at general meetings of the faculties and at great mass meetings of the whole institution. "And yet," says Rashdall, "there remained, and remain to this day, in our academical constitution clear indications of the fact that the chancellor was originally an extra-university official and was not the proper executive of the masters' guild. * * * It is to the proctors, a few years later, that the execution of the sentence of suspension denounced for violation of the statutes is intrusted."[a] Finally (about the middle of the thirteenth century), the chancellor lost independence of position as an ecclesiastical official and became simply and solely the university's presiding officer.

It was in 1254 that the university received from Pope Innocent IV full confirmation of all its "immunities, liberties, and laudable, ancient, and rational customs, and approved and honest constitutions;" the bull being addressed, not to the chancellor and university, but to the "masters and scholars sojourning at Oxford in the diocese of Lincoln."

The proctors were originally the "heads of nations," and it is time to add that instead of four nations and four proctors, with a single rector over all, as at Paris, the nations at Oxford, at the earliest period of reliable history, were but two, namely, those known as Northerners (Boreales), or English north of the Trent (if they chose to divide for any reason), and Scotchmen; and Southerners (Australes), including Welshmen, Irishmen, and the rest of the world.

As relates to the relative powers and responsibilities of the several faculties at Oxford, it must be said, that it was much the same as at Paris, the difference being that in the more recent Oxford the faculty of arts enjoyed a still greater dominance and maintained it right on, while at Paris, with the development of other faculties, which soon had statutes and officers of their own, the exclusive initiative of the arts faculty was broken down; but at Oxford the professional faculties not only never acquired an independent existence, with deans of their own, but the right of initiative of the faculty of arts eventually extended itself to the actual right of veto upon the proceedings of the university. Nor did the ascendancy of the arts faculty stop here. Since every statute, or rather *project* of a statute, must have promulgation in the "congregations" of regent-masters of arts, and said congregations were summoned and presided over by the proctors before the proposed statute could be acted upon by the university, the claim of this faculty to put a stop to a statute negatived in the congregation was a source of embarrassment for centuries after. Indeed, the proctors alone held the power of veto in their right to call the congregation.

Another peculiarity of the constitution is found in the several congregations for which it provides and the rights it accords to former teaching masters, known as nonregents in contradistinction to the resident masters or regents. Indeed, statutes were not valid in the early history of the university unless non-regents had been recognized in the calls issued.

The congregations were these:

(1) The black congregation, or previous congregation, made up of regents in arts, with its right of initiative and veto power.

(2) The lesser congregation, or regents' congregation, embracing the regents of all the faculties and charged with the granting of leases, the management of finances, the control of all matters relating to studies, lectures, and degrees, except such dispensatory graces from the latter as were specially reserved for the great congregation.

(3) The great congregation (congregatio magna), composed of both regents and

[a] Rashdall, Vol. II, p. 365.

non-regents. This was the supreme governing body and alone competent to enact a permanent statute; and here, as at Paris, concurrence of the four faculties, as shown by faculty votes, was undoubtedly necessary, as also was a concurrence of the non-regents; although in the year 1303 a statute was adopted which established the principle that a majority of the faculties, the non-regents being counted as one, should be competent to bind the whole university.

The office of chancellor came to be one of the most exalted that could be bestowed by any learned body in England. From being known at first as rector, or master, of the schools, with two years as the term of office, and chosen from among the masters who were resident in the university, and always, till 1552, from the ecclesiastical body, the chancellor came in later times to be chosen by the votes of all members of the convocation—by the doctors of divinity, law, and medicine, and by all regent-masters of arts, whether dependent or independent members of their respective societies—and for a life term.

It was in 1484 that John Russell, bishop of Lincoln, was first elected for life, since which time a life term has been the rule; but it was not until 1552 that the rule of selection from the ecclesiastical body was broken by the choice of Sir John Mason, knight; since which time the general rule has been the choice of lay statesmen, usually peers, Cardinal Pole and Archbishops Bancroft, Laud, and Sheldon being the only exceptions.

The high steward was named by the chancellor, with the approval of the convocation. The term came to be for life. His duties were to assist the chancellor and other university officers, to defend the rights of the university, and to hear and determine according to law all capital causes to which any matriculant was a party.

The vice-chancellor, formerly known as vice-gerent and later as commissary, was appointed by the chancellor from among the heads of houses and was subject to drafts for service regularly performed by the chancellor when he could not act.

The proctors, two in number, were quite early, as later, two masters of arts of at least four years' standing, but not more than fifteen. It was their duty to attend the chancellor on all important occasions, to regulate the assemblies of masters, to administer oaths, to keep the public accounts, to exact payment of fines, and to preserve the discipline of the university.

CONTEST WITH THE FRIARS.

The fourteenth century brought with it a contest with the mendicant friars in regard to taking university degrees before being allowed to lecture—a repetition on a smaller scale of that which so seriously, and for so long a period, afflicted the University of Paris. The friars made a beginning of their work of gaining converts quite early in the thirteenth century. The Dominicans established themselves at Oxford in 1221, very soon after their appearance in England. While their special mission was to convert the Jews of the town, their connection with the university was established by founding a school in theology conducted by one of their doctors. Next came the Franciscans, and they were successful in drawing in a considerable number of students of rank, thus adding to their importance. They may be said to date from 1224. The Carmelites followed in 1256, and in 1317 they removed to a palace graciously accorded them by King Edward II in Beaumont Fields. The Augustinians made ready for a convent in Holywell on the site of Wadham College in 1268.

The reputation of the friars for sanctity, associated with practical asceticism, was sufficient for a considerable time to maintain harmony between them and the seculars of the university. But after a time the multiplication of friar doctors alarmed the seculars, lest the university should fall under dominion of the orders, and they began to resist this increase in order to make sure that the control over graduates should permanently remain with the university. Instead of setting a fixed limit to the number of friar doctors by statute, as was done at Paris, the Oxford statute

simply required the candidate to be a graduate in the arts as a condition of inception in theology. This was highly distasteful to the friars, since they were unwilling to have their students study a secular branch of learning, such as the course in philosophy, which was necessarily included in the studies of the faculty of arts. There was an attempt on their part, finally, to meet this demand by providing for instruction in philosophy by their own teachers. But this did not satisfy the masters. The university seculars demanded by statute that the instruction in philosophy should be given by masters belonging to their own faculty—that of the arts. But at the same time it was liberally provided that there should be a dispensing power in this respect with the university chancellor and regents (the "grace"), the generous exercise of which preserved for some time the friendly relations hitherto subsisting between what were inevitably to become conflicting forces.

The real struggle began by the enactment of quite a number of statutes from 1303 onward, which were obviously directed against the friars, all tending to place the power to grant degrees solely in the control of the university. Friars were eventually compelled to take the degree of bachelor of theology in the university and not merely obtain the authorization of their own superiors to lecture upon the Bible. The "graces" dispensing from the obligation to graduate in arts began to be refused them. Secular masters began to refuse admission to friar candidates who would not take the oath to obey the statutes of the university, one Dominican doctor being expelled from the university for refusing the oath. Contumacious friars were even excommunicated by the Archbishop of Canterbury. The whole dispute was finally appealed to Rome, where it was decided in 1314 in the main in favor of the university, with some concessions to the friars.

OXFORD STUDIES.

The following programme of studies is taken from Rashdall. According to him the chief requirements for the various degrees in 1267 A. D. were these:

IN THE FACULTY OF ARTS.

For the degree of B. A. (admissio ad lecturam Alicuius libri Facultatis Artium).—Four years' study.

For "determination" (first public step looking to a degree and consisting of the defense of a thesis before masters) in 1267 A. D.—To have been admitted as above and "read" some book of Aristotle. To have responded de quæstione. To have heard: (1) The Old Logic; i. e., Porphyry's Isagoge; the Categoriæ and De Interpretatione of Aristotle; the Sex Principia of Gilbert de la Porrée, twice, and the logical works of Boethius (except Topics, Book IV), once. (2) In the New Logic, Priora Analytica, Topica, Soph. Elenchi, twice; Posteriora Analytica, once. With either (1) Grammar, i. e., Priscian, De Constructionibus, twice; Donatus, Barbarismus, once. Or (2) Natural Philosophy, i. e., Aristotle, Physica, De Anima, De Generatione et Corruptione Animalium. To have responded de Sophismatibus for a year or have heard the Posteriora Analytica twice, instead of once.

For license and inception (admission to the mastership).—Three years' additional study. To have been admitted "ad lecturam alicuius libri Aristotelis" and to have lectured thereon. To have been admitted to determine (?). To have responded apud Augustinenses [at the cloister?] and taken part in a certain number of other disputations.

ADDITIONAL REQUIREMENTS—STATUTE OF 1431.

To have heard (in addition to the books already read for B. A.):

In the seven arts.—Grammar: Priscian in majore vel minore, one term. Rhetoric: of Aristotle, three terms; or the Topics of Boethius, Book IV; or Cicero, Nova Rhetorica; or Ovid's Metamorphoses; or Poetria Virgilii. Logic: Aristotle, De

Interpretatione, three terms; or Boethius, Topics, first three books; or Aristotle, Prior Analytics, or Topics. Arithmetic: Boethius, one term. Music, Boethius, one term. Geometry: Euclid [?, six books]; or Alhaçen, two terms [or Vitellio, Perspectiva]. Astronomy: (Ptolemy ?) Theorica Planetarum, two terms; or Ptolemy Almagesta.

In the three philosophies.—Natural: Aristotle, Physica or De Cœlo et Mundo, or certain other books of Aristotle, two terms. Moral: Aristotle, Ethica, or Economica, or Politica, three terms. Metaphysical: Aristotle, Metaphysica, two terms.

IN THE FACULTY OF MEDICINE.

For M. B. (admissio ad legendum librum Aphorismorum).—No time specified.

For admission "ad practicandum" in Oxford.—For M. A. candidates, four years' study. To pass an examination conducted by the regent doctors. For others, eight years' study and examination.

For license and inception.—For M. A. candidates, six years' study (in all). To have "read" one book of Theorica (i. e., the Liber Tegni of Galen, or Aphorismi of Hippocrates), pro majore parte. To have "read" one book of Practica (i. e., Regimenta Acutorum of Hippocrates, Liber Febrium of Isaac, or the Antidotarium of Nicholas). To have responded to and opposed in the schools of the regents for two years.

For others, to have been admitted to practice, as above: eight years' study (in all): to have given the above lectures.

IN THE FACULTY OF CIVIL LAW.

For B. C. L. (admissio ad lecturam libelli Institutionum).—For M. A. candidates, four years' study.

For others, six years' study.

For license ad legendum aliquod volumen juris civilis (e. g., the Digestum Novum or Infortiatum).—To have heard the libri apparitati of the civil law.

For inception—(No additional time specified). To have lectured on the Institutes, the Digestum Novum, and the Infortiatum. To have given an ordinary lecture for each regent doctor. To have opposed and responded in the school of each decretist.

IN THE FACULTY OF CANON LAW.

For bachelor of decrees (admissio ad lecturam extraordinariam alicuius libri decretalium).—Five years' study of civil law. To have heard the decretals twice, and the decretum for two years.

For inception as doctor of decrees.—To have read "extraordinarie" two or three "causes" or the tractate De Simonia, or De Consecratione, or De Pœnitentia (parts of the Decretum). To have opposed and responded to the questions of every regent. To have given one lecture for each regent.

[After inception, two years, afterwards one year of necessary regency.]

IN THE FACULTY OF THEOLOGY.

For opponency—For M. A. candidates, four or five years' study, presumably divided between the Bible and Sentences, since three years' "auditio" of the Bible are required for inception.

For others, eight years in the study of arts; six or seven years in theology.

For B. D. (admissio ad lecturam libri Sententiarum).—For M. A. candidates, two years more, i. e., seven years in all. Certain opponencies, number not specified.

For license.—Two years' further study. To have lectured on one book of the Bible and on the Sentences. An examinatory sermon at St. Mary's. Eight responsions to nongraduate opponents. To dispute (as opponent) with every regent D. D. Vespers.

Considerable prominence was given to mathematics and the sciences then most

closely associated with that study, viz, music and astronomy or astrology. Degrees in music were granted in the fifteenth century. The candidate was required to compose a mass and a song (cantilena) to be performed at St. Mary's at the summer inception. The M. B. degree was taken to "read any book of music" or "any book of the music of Boethius." Rashdall states that "this graduation in music was a peculiarity of the English university system which we have hitherto seen only in certain Spanish universities." "The doctor of music was academically on a level with the humble master of grammar." In the sixteenth century a scholar was admitted to practice in astrology.

At the end of the fifteenth century is found "the practice of creating poets laureate by their actual investiture with a laurel crown."

The Greek and Hebrew professorships ordered by the council of Vienne in 1311 were actually founded.

French was another study which held a somewhat anomalous position. It was evidently studied with a view to practice in the law.

EXAMINATIONS AND CONFERMENT OF DEGREES.[a]

Examinations at Paris included any process of inquiry into the candidate's fitness, as well as direct testing of his scholastic attainments. There was an examination in the modern sense by the chancellor and examiners. But at Oxford there is no express evidence of the existence of an examination in the literary sense of the word. The candidate for the license in arts presented himself before the chancellor and swore that he had heard certain books, and nine regent masters (besides his own master, who presented him) were required to swear to their knowledge of his sufficiency, besides five other masters who were willing to certify to their belief in him. In the faculty of theology all the regent masters were required to testify to their "knowledge" of the sufficiency of his qualifications, a single negative vote being fatal to his success.

It is important to notice that only the regent masters of the faculty had any share in advising the chancellor as to the fitness of a candidate for the license. So in the actual admission to the mastership—the inception—none but regents of the faculty took part except the chancellor and proctors. The actual ceremony of inception—the presentation of the book and ring, and the putting on of the biretta with the kiss of fellowship—was performed by a regent of the faculty. Some of this ancient ceremonial survived until comparatively recent times.

THE SYSTEM OF INSTRUCTION.

This was the same as at Paris. It was certainly less effective in the times from the twelfth to the sixteenth centuries than under later and better conditions, and for very good reasons.

First, there was no sufficient support for university teaching. The teachers were obliged to depend upon a share of fees paid by students (the collecta), which was not a certain source of income.

Secondly, the enforced teaching which came of the rule of necessary regency was sure to provide a measure of poor instruction. Under that rule or statute every master, at his inception, was required to bind himself to do two years of teaching. He at the same time, by virtue of his graduation, became a regent. Hence the term "necessary regency," a system which was calculated not only to load the university with inferior lecturers, but also to embarrass it greatly by the resulting fluctuations, notwithstanding the fact that under a pretty strict code of regulations the master could continue his lectures any length of time. It was a realization of the

[a] Rashdall, II, 442.

faultiness of this system and of the weakness which came of an uncertain and insufficient pecuniary reliance that prompted the Duke of Gloucester (Humphrey) in 1436 to found lectureships for each of the seven arts and three philosophies. But they counted but little in the strengthening of the university, for the reason that these foundations terminated with his death.

The enduring relief came with the founding of colleges, which, by doing much of the work at first done by the university, allowed the use unreservedly of whatever resources they possessed in carrying forward university teaching. And by and by it came to be popular to found chairs in the university itself, i. e., in what might be properly styled the university division of that aggregation of schools which came to be known as Oxford University.

CIVIL HELPS AND HINDRANCES.

The universities of the present day convey but a faint conception of the general importance of the relations which came to exist between the university at Oxford on the one hand and the royal and municipal authorities on the other. In so far as the Kingdom is concerned, the relation was of course pretty one-sided—that is, the King had his way. But, happily, the sovereigns of England, even in the earliest days of the university, were of a capacity and culture that for the most part made them its friends, protectors, and promoters.

The government of Oxford and of other English towns in the Middle Ages was characteristic in that it was both local and central—self-government of the town, with reserved rights of inspection and control on the part of the King and council. And a happy thing it was, for the King and his council were much more likely to appreciate the needs of the university than were the mayor and council of Oxford. A happy thing, too, that the usage of the times allowed the will of the sovereign to pass for law within limits which especially concerned the well-being, even the comfortable and respectable living, of the university community. The King, if not satisfied with the slow motions of the local authorities, as very often he was not, would issue an order to the sheriff requiring him to see that the occupants of a given street, for example, complained of put their own premises in order, as well as the pavement in front, and that beyond these individual obligations the rest should be attended to by the town itself. The faculty—masters and students—were from abroad, many of them delicate in constitution, and perhaps more subject to disease than natives of the town. The prosperity and future importance of Oxford were to be held above all else, and it was, therefore, a double duty of the authorities and of the people—a duty resting both on self-interest and upon honor—to see that the rules of hygiene were observed. The sovereign was ever on the alert lest even the wrong stream of water be tapped for the town and university supply; lest bad bread and bad beer should also result therefrom and the people and students suffer in common. Nor did the protecting care of King and council limit itself to material interests. It was often in demand and the king was usually very ready to intervene in the settlement of controversies, disputes, and quarrels between university and town, as well as between conflicting forces in the university itself. Sometimes the decision was pro urbe and sometimes pro universitate, the victory in more than one instance going so far to the popular side as to include the removal of both chancellor and proctors from the posts of honor in the university. There were even royal measures in use for protecting the morals of university students from the demoralizing influence of tournaments, jousts, etc., by forbidding them altogether, and by what was deemed a fitting censorship over such theatrical entertainments as were allowed.

At first the jurisdiction of the chancellor was purely ecclesiastical, the authority having, in so far as the masters and scholars of Oxford were concerned, been delegated to him. As was usual in those days, everybody who had attained to the

dignity of even a scholar at the university was supposed to have one or more dependents, while the masters and officials generally were favored with something of a retinue. And, finally, there were servants and workmen not a few who served the university in its corporate capacity. The more serious cases of discipline were, nevertheless, quite commonly reserved for the bishop, or rather for his representative, the archdeacon, there being then no bishop at Oxford.

Excommunication and penance were doubtless sufficient to insure the chancellor's jurisdiction, and the rapid growth of the university afforded enough for him to do outside of the usual order. And then gradually that jurisdiction extended in complicated cases of conflict between scholars and townsfolk who were laymen. And, finally, the commonness of such cases, coupled with the ever-increasing dignity and importance of the university, made it easy to ignore the barriers between civil and ecclesiastical powers and to increase the advantage of the more aggressive force, so that quarrels could be settled as early as 1214 by papal legate and bishop without reference to the King, and but a few years later (1228) a case arose in which the town so far yielded as to permit the offending party to be sent all the way to Rome for trial.

It was at this same time that the King issued orders to the mayor and bailiffs allowing the chancellor to use the town prison for the confinement of offending students; as also, later still, the royal prison. There was no bishop's prison then.

In the year 1231 a royal brief was issued for the expulsion of all scholars without masters. The town was full of a rattling, noisy, comparatively ignorant, and often turbulent crowd, who added to the fame which came of numbers but who were in every other respect a detriment to the university.

The year 1244 brought in important enlargement of the prerogatives of the chancellor in questions of debt, disputes over prices, rents, etc., "and all other contracts of movables" to which at least one party was a clerk or regular student. It came of violence in the streets of so serious a nature that some fifty of the students were imprisoned. They had been charged what was thought unreasonable interest. And the result of the conflict was that, soon after, a charter was granted which forbade the Jews of Oxford to take a higher right than 2d. per pound per week as interest from scholars.

Four years later a charter was granted giving to the chancellor and proctors the right to assist at the assaying of bread and beer, on the one hand, while upon the mayor and bailiffs who had the first part in this business it imposed an oath upon admission to office to respect the rights and customs of the university. And seven years after that, to wit, in 1255, was added to the steadily growing powers of the university in affairs both ecclesiastic and civil a criminal jurisdiction also, even over laymen in cases of breach of the peace. It was natural that under these conditions there was steady grasping for more authority by the university. Nor was it strange that a rude and resolute people should at times give way to a deep feeling of resistance to what was so plainly an advancing, and in a greater or less degree an encroaching power in their midst, or strange that conflicts resulted. For this reason it was natural, if not inevitable, that conflicts between town and gown should occasionally lead to the abandonment of Oxford by numbers of her students. Sometimes they distributed themselves among institutions on the continent; but in a number of instances the secessions were sufficient for the beginning of new institutions, such, for example, as that of 1209 to Cambridge, and that of 1238 to Salisbury, and the maintenance there of a quite flourishing school for a considerable time. That of 1334 from Northampton to Stamford, when the former rebellious town was captured by Henry III, was due, however, more to a warlike conflict between Northerners and Southerners than to differences between the school and the community.

In those times customs, where the thing done or claimed was at all reasonable, or had gained a beginning in some interest of importance, like that of church and school,

made an easy start, and in a very few years were for the most part as good as law. Nevertheless, where vital interests, like those of personal freedom and security in general, were involved, the royal confirmation of custom by charter, by formal order, or even by a personal command, was always welcome. But in 1275 Edward I went beyond an act of mere confirmation, while according to the chancellor cognizance of all cases where a student was in the rôle of "defendant," by his issue of a charter wherein the broader expression of "party" took the place of "defendant." And in 1303 he decreed that a room or hall once rented to a scholar or scholars could not afterwards be let to a layman so long as there were students still unaccommodated. The first and formal definition of the chancellor's jurisdiction by both King and Parliament was made in 1290. He now obtained jurisdiction in case of all crimes committed in Oxford where one of the parties was a scholar, except pleas of homicide and mayhem.

The most fearful of all the many conflicts between the university and the town was that of 1354, wherein a miserable broil in a tavern between a number of students and the proprietor led to desperate fights and to pitched battles all over the town, even to the slaughter of numerous persons on both sides as well as to much destruction of property.

The story, as Rashdall has it from Anthony Wood, is worth telling, for it gives an idea not otherwise so easily gained of student life in those days, and of the state of society encountered by the university of the mediæval period.

On Tuesday, 10 Feb. (being the feast of St. Scholastica the Virgin), came Walter de Springheuse, Roger de Chesterfield, and other clerks to the tavern called Swyndlestock (being now the Mermaid Tavern at Quatervois, styled at this day in leases Swynstock), and there, calling for wine, John de Croydon, the vintner, brought them some, but they disliking it, as it should seem, and he avouching it to be good, several snappish words passed between them. At length the vintner giving them stubborn and saucy language, they threw the wine and vessel at his head. The vintner therefore receding with great passion, and aggravating the abuse to those of his family and neighborhood, several came in, encouraged him not to put up the abuse, and withal told him they would faithfully stand by him. That was all. The same narrative would be a sufficiently exact description of scores of similar conflicts at Oxford, Paris, or any other university town.

After this affairs took the stereotyped course. The vintner's friends rang the bell of the town church of St. Martin. The commonalty "in an instant were in arms, some with bows and arrows, and others with divers sorts of weapons." The scholars, at present defenseless, were shot at. The chancellor appeared upon the scene to "appease the tumult;" he was shot at, and had to flee for his life back into gownland. By his order St. Mary's bell is rung. At such a moment the chancellor is not overmuch distressed to find that his annual proclamation "contra portantes arma" has not been too literally observed. Ere long he is at the head of an army of English archers. With such weapons it is difficult to understand how the fight could have been maintained till even the close of a February day without a single man on either side being killed or mortally wounded. But neither townsmen nor gownsmen were as skilled with their weapons as the yeomen of Cressy.

The fight had begun on a holiday; the next day was a "legible" one. The chancellor made proclamation against breaches of the peace. The obedient scholars, we are assured, betook themselves meekly to the schools. But not so the townsmen. The bailiffs had ordered the citizens to prepare for a renewal of hostilities, and had even hired reinforcements of peasants from the surrounding country. A "determination" which was going on at the Augustinian Convent (the present Wadham College) was broken in upon by a band of armed townsmen. Fourscore citizens, armed with bows and arrows, laid wait in St. Giles's Church till after dinner, when the scholars began to appear in their accustomed recreation ground in Beaumont fields. This time some of the scholars were mortally wounded. Again the rival bells of St. Mary's and St. Martin's were heard, and preparations made for a pitched battle. The gownsmen shut the town gates, for the rustics were seen swarming in from Cowley, Headington, Hinksey; but it was too late to prevent a party of some 2,000 entering, with an ominous black flag displayed, by the west gate. Hatred of the secular clergy was a pretty strong passion in the rustic mind of the fourteenth century. Now was a fine opportunity for paying off old scores against the parish priest. Some twenty inns or halls were pillaged. Scholars were killed or wounded;

their eatables and drinkables plundered; their books torn to pieces; the halls themselves were fired. The next day the chancellor is dispatched at the head of a deputation to the King at Woodstock. Meanwhile proclamation is made that the scholars (who had been outnumbered and completely overpowered on the preceding day) shall remain in their houses. But again the halls are broken into. More scholars are killed outright in cold blood and their bodies mutilated. Others, horribly wounded, are carried off to the town prison. "The crown of some chaplains, viz, all the skin so far as the tonsure went, these diabolical imps flayed off in scorn of their clergy." Churches supply no sanctuary. The fugitives are beaten and wounded, clinging to the very altars, nay, to the tabernacle itself. The friars, forgetting for the moment their own very bitter differences with the university, come out in solemn procession bearing the host and chanting a litany for peace. The crucifix is planted in the midst of the rioters with a "procul hinc ite profani;" but the sacred symbol is dashed to the ground. One scholar is killed even while clinging to the friar who bears the host. At last the scholars begin to flee the town, and no further mischief remains to be done. But for the scholars of Merton, safe behind their solid walls, and a few others, the town is deserted.

But now comes the day of vengeance. For more than a year the town lies under an interdict, which is proclaimed in all the churches with the accustomed paraphernalia of bells and curses and extinguished tapers. The King issues a special commission for the investigation of the affair and the punishment of the offenders. The mayor and bailiffs are sent to the Marshalsea prison; the sheriff, who was held, we may presume, responsible for not preventing the inroad of the rustics, is removed from his office. The further hearing of the affair is adjourned to London. Both university and town surrender all their privileges and charters—the university including even those received from the Holy See—into the King's hands. The university had of course decreed a "cessation," and indeed most of the scholars had of their own accord fled into the country. Not till a general pardon was proclaimed for the offenses of the clerks—an indication, by the way, that the scholars' conduct in the affair had not been altogether as lamblike as their advocates represented—and published throughout the country did they begin to flock back to their old haunts. As late as June 11, 1355, it was necessary for the King to send a writ to Oxford to entreat the masters to resume their lectures.

As the outcome of the whole affair there resulted fresh privileges for the university; fresh humiliation for the town. The assize of bread, wine, and ale; the assize of weights and measures; the cognizance of cases of forestalling and regrating; the "correction of victuals;" the punishment of both clerks and laymen for carrying arms; the cleansing and paving of the streets (which was to be enforced by ecclesiastical censure); the "assessment and taxation" of privileged persons—all these matters were now placed under the sole and exclusive jurisdiction of the chancellor. * * * On every one of the long-standing subjects of contention between town and university the latter scored a permanent triumph. From this time forward the town of Oxford was practically governed by the university. [a]

The town was also to pay to the chancellor and scholars £250 as compensation for injuries to property; all goods of the scholars undestroyed were to be restored at once. Besides the material compensation which they received from the Crown, the scholars were awarded satisfaction at the hands of the bishop. He enjoined an annual penance on the city to be performed forever, as follows:

On every anniversary of St. Scholastica's day, the mayor, bailiffs, and sixty burghers were to appear in St. Mary's Church at the celebration of mass with deacon and subdeacon (at their own expense) for the souls of the slaughtered scholars, and at the offertory each one of them was to offer 1 penny at the high altar. Of this sum 40 pence was to be distributed by the proctors among poor students and the rest to go to the curate of the church. The length of time during which this penance has been performed is one of those curious links between past and present which would hardly have been possible in any country but our own. After the Reformation the town availed itself of the opportunity of neglecting the popish ceremony, but upon the university bringing an action against the city upon their old bond for its observance, the council ordered that the mass should be commuted to a sermon and communion, the offering to be made as heretofore. After a few years the service was changed to a litany. In the year 1800 the municipality once more attempted to shake themselves free from the humiliating observance. Once more the fine of 100 marks provided for in the bond was demanded by the University and paid by

[a] Rashdall, II, 403–406.

the town. It was only in 1825 that on the humble petition of the city the university was graciously pleased to forego its rights and that the citizens of Oxford ceased to do annual penance for the sins of their forefathers on St. Scholastica's day, 1354.[a]

Henry IV went beyond all his predecessors in one important regard—that of granting to the university the right to claim the surrender of "privileged persons," though indicted for felony, and their trial by an officer of the university, newly appointed and known as the seneschal or steward, if deemed competent by the lord high chancellor; the trial itself to be under civil law and by a jury composed half of privileged persons like the accused, chosen from a panel offered by the bedel, and half of townsmen summoned in the ordinary way by the county sheriff—another illustration of the slowness of the English to abandon a rule of action once adopted, for this unexampled and even unconstitutional charter has proven itself superior to the urgent appeals of the Commons and still endures, nay, has been sanctioned by act of Parliament. These "privileged persons" were laymen, servants of scholars, and members of privileged trades, not clerks. Where the offender was a clerk, in cases which, under the law, could not be tried by the chancellor, he was, after conviction at assizes, turned over to the bishop for punishment in accordance with ecclesiastical law.

Punishments were generally light, not unfrequently amounting to a mere compliance with the law in all the requisite formalities, with an easy penance or acquittal on the testimony of friends, and up to the Reformation more or less of favor was shown the clerks. After the Reformation members of the university were no longer treated as clergymen, and clerks had no more benefit of clergy than laymen.

Finally, not long after the opening of the fifteenth century, the authority of the university was almost supreme over the town. It was a turbulent period. The frequency of assaults, not merely among rowdies in the streets, but even among monks, masters of arts, beneficed clergymen, principals of halls, and heads of colleges, was notorious. Ecclesiastical discipline at this time involved interference with the private lives of individuals, and inquisitions were conducted under university sanction and jurisdiction into the character and conduct of the townspeople. The town was divided into districts, each under a theological doctor and two masters of arts as judges. They sat in the various churches of the town and held their investigations, a jury of citizens being summoned to give evidence. They reported to the chancellor, before whom the offenders were summoned for sentence, the punishment being excommunication and penance.

THE GROWTH OF INDEPENDENCE.

The University of Oxford had its beginning in the church; the town being in the diocese of Lincoln, the university was under the control of the bishop of that diocese, the chancellor being merely the bishop's delegate.

While the functions of the chancellor were very nearly the same as at Paris, the circumstances at Oxford furnished a vantage ground which he was not slow to occupy. At the outset all authority was with the bishop, and the chancellor was simply his representative. But the distance between Lincoln and Oxford (120 miles) was so great in those days as to make it easy for the chancellor to gain authority to act on his own judgment more and more. Especially was this the case during the incumbency of Bishop Robert Grossetête, whose broad and generous nature, coupled with a sincere love of learning and a worthy ambition for his alma mater, made him a welcome helper in every way. The first disagreements between the university and the bishop broke out during the incumbency of Bishop Grossetête's successor, Henry of Lexington, upon the question of autonomy, whether the university should be governed by itself or the bishop. The dispute continued until 1257, when a

[a] Rashdall, II, 407–408.

peace was arranged before the King in Parliament. The terms of this agreement are not known, but subsequent royal grants of privilege were made in favor of the chancellor's jurisdiction, thus making him independent of the bishop.

Richard of Gravesend, successor to Lexington in 1258, was of a different type, and during his rule, which lasted until 1279, matters went smoothly on in the direction of a further enlargement of the university's powers, so that, in his last year, a council of Archbishop Peckham and his co-provincials, held at Reading, solemnly confirmed the privileges of the university, and provided for the exercise of the chancellor's power of excommunication, even to the extent of securing the execution of his judgments against offenders in any diocese to which they might have escaped.

But Bishop Sutton, Gravesend's successor, assumed again the rôle of opponent to the university. Nevertheless, in the very first year of his incumbency the congregation swore to maintain these solemn declarations in opposition to the bishop, namely: (1) That a scholar might cite a lay defendant before the chancellor; (2) that probate of the wills of scholars was with the chancellor; (3) that the right of inquiry into the moral delinquencies of scholars belonged to the chancellor; (4) that no master could be required to plead in any court other than the chancellor's, in the matter of contracts entered into within the university.[a]

In 1281 another instance of a repudiation of the bishop's authority is found in the summons of the chancellor, proctors, and other masters to answer before Bishop Sutton for contempt in resisting his visitatorial powers. In answer, they pleaded that the chancellor had authority to act in cases like those mentioned in the summons, and that jurisdiction was with the bishop only "in defeat of the chancellor," or in case of an appeal to him after an appeal in vain had been made to the university congregation. The question was finally taken before a provincial convocation, wherein the archbishop and his colleagues so warmly espoused the cause of the university that the bishop yielded with the best grace he could. And from this time on the chancellor's jurisdiction was practically exclusive of the bishop's.

Then followed a contest over the matter of the chancellor's confirmation—first, as to whether he should appear before the bishop in person to receive such confirmation, and, secondly, as to what should be done in case of the bishop's refusal to act or of serious delay. The result was an appeal to the archbishop, who, in the case of neglect by the bishop of Lincoln himself, took the responsibility. The pope, on appeal from the bishop, issued a final decision to the effect that, while confirmation lay first with the bishop, yet the right of the archbishop to act in default of the Bishop of Lincoln should be without question. The confirmation thus became a mere formality, and had in fact disappeared long before 1368, when it ceased altogether by papal decree.

It was at this time (late in the fourteenth century) that Wycliffe came upon the stage, with his denial of transubstantiation and of the "sacrifice of the mass," on the one hand, and his bold declaration that the civil powers might seize and use the property of "habitually delinquent clergy," on the other. It mattered not that Wycliffe's doctrines had been condemned by the pope in 1377, by the "Earthquake Council" in 1382, as well as by the archbishop and his assessors, at the Blackfriars' chapterhouse in London, the chancellor refused to comply with the mandate of the archbishop directing him to publish the condemnation of Wycliffe's theses in the usual way, on the ground that the university was exempt from the archbishop's jurisdiction. Sermons were preached at Oxford supporting Wycliffe's doctrines, which took strong hold at the university. The chancellor was subsequently compelled to beg pardon of the archbishop, but the subjugation of the university to the ecclesiastical authority was not completed until a full generation after Wycliffe's death. Meanwhile, in 1395, "Boniface IX granted a bull exempting the university

[a] Rashdall, II, 422.

from the jurisdiction of all archbishops, even "legati nati," bishops and ordinaries. Even exempt persons, such as the mendicants and monks of exempt monasteries, and exempt cases, such as assaults on clerks, which continually sent the clerks of Paris to seek absolution from special papal delegates, were now expressly placed under the jurisdiction of that most anomalous of dignitaries, the chancellor of Oxford."[a]

But the whole church had been aroused, and ere the incoming century had dawned the exemption of Boniface IX had been disregarded by the archbishop, on a fictitious plea, and actually surrendered by a university proctor in open convocation. True, the university was determined not to yield its rights because of such surrender, made without authority, and held its ground for a while. But the contest went on until in 1411 the archbishop of Canterbury brought matters to a crisis by appearing upon the scene and summoning the university to appear before him in his capacity of visitor, in St. Mary's. Whereupon Chancellor Richard Courtenay, and the proctors Benedict Brent and John Byrche, flatly refused the archbishop entrance to Oxford in any such capacity; besides which the students occupied the streets armed with their bows and arrows, and with a bold declaration of their determined purpose to use them should the primate make his appearance. Deeming discretion the better part of valor, he desisted, but made such representation to the King of the contempt put upon him "by a company of boys" that the King forthwith ordered the masters to choose a new chancellor and proctors; but the masters so far refused obedience as to elect the ruling ones over again, who, by the mediation of Henry, Prince of Wales, were eventually allowed to retain their offices. Nevertheless, the bull of Boniface IX, making the cherished exemptions, was revoked by John XXIII, in November, 1411, and the university was compelled to surrender to the archbishop.

The causes of this revocation were undoubtedly the free run of Wycliffism and Lollardism, with more or less of an abuse of freedom among both masters and students. A just and considerate use of the great privileges of the university would have insured their permanency.

This long period in the history of the university appears to have been marked by but one very important change in the constitution, or at least in the usage—the change from biennial elections of the chancellor and from his being the actually resident head of the university, to permanency in office and to a residency subject to the will and pleasure of the incumbent. Moreover, the subjection of the university was more and more strengthened by a growing spirit of domination in the royal court and of accordance between the papal and the royal powers; so that the court was becoming more ecclesiastical and the church hierarchy more court-like than of yore. In this way the bishop of Lincoln himself secured the chancellorship of the university, and in time the chancellor became in effect an obedient servant of both church and state. This subjection of the university to ecclesiastical authority lasted until, in 1479, a bull was obtained from Sixtus IV legally restoring the exemption from all English ecclesiastical authority. In 1490 the chancellor received the privilege of licensing preachers to preach in every diocese in England, a privilege which, though obsolete, the university still nominally retains. This was the last accession of dignity to that office.

OXFORD COLLEGES.

The colleges of Oxford were an outgrowth of the halls or hostels system of the early time—those little groups of scholars, often only four or five in number, who banded themselves together for mutual advantage, rented a little house or hut, chose their leader (finally known as principal), as a means to some sort of order, and began their studies. After a while these became independent communities after the fashion of boarding houses, each governed by a master under authority of the university.

[a] Rashdall, II, 430.

Naturally they multiplied, and the colleges which supplanted them grew by degrees, with the help of many benefactions, until they numbered some fifteen during the Middle Ages, and now number over twenty, their order in time being as follows (dates taken from Rashdall and Andrew Clark):

1. University College	1249–1280	9. All Souls College	1438
2. Balliol College	1261–1282	10. Magdalen College	1448
3. Merton College	1264	11. Brasenose College	1508
4. Exeter College	1314	12. Corpus Christi College	1516
5. Oriel College	1324	13. Christ Church College	1524
6. Queen's College	1341	14. Trinity College	1555
7. New College	1379	15. St. John Baptist College	1555
8. Lincoln College	1429	16. Jesus College	1571

To which have since been added:

17. Wadham College	1613	20. Hertford College	1740, 1874
18. Pembroke College	1624	21. Keble College	1870
19. Worcester College	1714		

The relation of the halls to the university authorities was at first very slight indeed. But, little by little, the university extended its authority over them; the requirement of security before the chancellor for the rent of the house in which the society would maintain itself being the first step. This served to prevent disputes between competing applicants. Any scholar who tendered the required amount could claim the right to be recognized as principal. On the other hand, the chancellor assumed the right to reject any principal thus claiming the honor, and even to remove such as had gained the principalship already by means contrary to the university regulations in such matters; and, as was natural, there was much increase of arbitrary power, even to the vetoing of the statutes agreed upon by the halls, whether singly or in common. Scholars expelled from any hall for violation of the statutes could not be lawfully received into another by its principal; and it was further enjoined that only scholars of good character should be received into any hall; also that all scholars should reside in the halls of principals "lawfully approved and admitted by the chancellor and regents" of the university; and, finally (in 1432), that no one could be principal who had not received at least the degree of bachelor of arts. The next step was to require that a principal should help the scholars under him in their studies. And then it was that a club of students, led by one of their own, under rules of their own making, gradually grew into a recognized university institution.

Coming now to the colleges, properly speaking, we find that they furnish a most interesting history, sufficient, as Andrew Clark, fellow of Lincoln College, has said, to make as many volumes. But hardly more can be done here than to indicate in a general way their constituents of official or titulary rank, and the characteristic features of the several institutions embraced in the university, as the central, all-embracing, and supreme body. Of their characteristics he says: "The constitutional changes, with the six, four, or fewer centuries of their existence, were neither few nor slight. The society within the older of them has reflected from age to age the social, religious, and intellectual condition of the nation." He further says, dealing with their salient features severally, from the first of them to the nineteenth century:

Brasenose and Hertford furnish a history of the multiplicity of halls for seculars, out of which the colleges grew. In Trinity and Worcester we have a glimpse of the houses for regulars, which for a while mated the colleges, but disappeared at the Reformation. In Queen's early social conditions are illustrated. In New College are shown the early studies. Balliol gives prominence to the Renaissance movement; Corpus Christi, to the consequent changes in studies. In Magdalen we see the

divisions and fluctuations which followed the Reformation; in St. Johns, the golden age of the early Stuarts; in Merton, the dissensions of the civil war; in Exeter, the strong contrast between Commonwealth and Restoration. The history of University College enlarges on the Romanist attempt under James II. The bright and dark sides of the eighteenth century are exhibited in Pembroke and Lincoln. To the history of Corpus, which describes the Renaissance, belongs the right to depict the renewed love of letters which distinguished the nineteenth century. Lincoln sets forth the constitutional arrangements of a pre-Reformation college. Lincoln and Worcester show what uncertainties projected colleges must go through before they are legally settled. Christ Church suggests the architectural and artistic wealth of Oxford.

The college officials consisted of a head and a body of masters of arts or fellows.

The head of the college (who in different institutions was variously known as dean, principal, master, provost, warden, president, rector), except in the case of Christ Church, where the dean is named by the Crown, was, and is, chosen by the fellows. His duties were, as now, to superintend, present candidates for degrees, etc.

The qualifications of fellows have varied more or less in each of the several societies. In some they were limited to the natives of particular counties in England, and in other cases the choice was fixed by the founder, whose will provided that a given number of his own kindred should become at once members of the house endowed by him.

The fellows, in conjunction with the head of a college, were in all cases directors of the regulations of the society and the managers of its estates, and from them the officers of the college were selected.

A limited number of poor boys were admitted as scholars and were quasi probationary fellows in most cases. Indeed in Christ Church a scholar was equivalent to a fellow. They were in some colleges appointees and servitors of the fellows. The system of competitive examination for scholarships is of modern origin.

Exhibitioners were those who, coming from particular counties or schools, received from the bequest of private persons, or from colleges themselves, a fixed sum for support during the period of their study—a period of from three to seven or nine years, and sometimes even longer. The holders were generally required to reside at the college a given length of time annually, and were subject to certain regulations.

Bible clerks.—The duties of these officials varied in different institutions. Generally speaking, they were required to attend the chapel service and to keep a memorandum of the undergraduates present.

The bursars' duties were to receive the rents from the estates and other properties of the college, to disburse all sums necessary, as expenses, and to pay the stipends due to the fellowships and scholarships.

Enough has now been said to convey a general idea of the beginning, growth, and final status of Oxford University at the close of the Middle Ages, with its grand galaxy of colleges, so alike, and yet unlike, in their characteristic features, and so deeply interesting to the student of educational history.

OXFORD AND MEDIÆVAL PROGRESS.

Great was the influence of the mother University of Paris upon the beginning of university work in Oxford—so great that the early University of Oxford has been described by Rashdall as being "in all probability, a cluster of Parisian schools transferred to English soil."[a] But, unlike Paris, the political and ecclesiastical influence of Oxford was inconsiderable, both because of its isolation, with sparsity of population, and the less complete subordination to the Papal power of those who founded and built it up. The inhabitants of the British Isles always possessed a spirit of independence, and were not special favorites with the powers at Rome.

[a] Rashdall, II, 520.

Its political influence was also but slight because the men of superior force in public affairs were not so ready as on the Continent to give themselves to university work; also because, unlike Paris, Oxford was a country town, far away from the capital; and, finally, because the stronger English kings were more intense lovers of power, and found it agreeable to keep their hold upon an institution claiming supremacy in the intellectual realm.

It was the scholastic studies that, first of all, engaged the sympathies and efforts of the early thinkers and workers at Oxford, and in this great field she soon won a place only second to that which in those times was quite universally accorded to Paris. This practical limitation of Oxford was not so much a matter of choice as of necessity. The British Isles during the Middle Age period were scarcely more isolated geographically than ecclesiastically. Besides, on the part of the people and of their rulers there was a degree of rugged force and independence of thought and feeling that made them less ready to fall under dominion of the ruling church. Rashdall says:

> It was not as a great semiecclesiastical corporation, but as a center of speculative thought and of religious life, that Oxford contributed to the making of English history. It was through her influence upon the religious life of England that the University of Oxford did, as we shall see, at one supreme moment open a new page in the history of England and of the civilized world.[a]

Oxford so readily followed Paris into the scholastic field that they were in effect workers side by side. But it also deserves to be said that owing to its famous teachers in the thirteenth century, broad and profoundly cultured men of genius, she became more than a merely scholastic center, even at that early time.

These great men were Edmund Rich, afterwards archbishop of Canterbury, who is credited with being the first master who taught the new logic in her schools, and the yet greater Robert Grossetête, her first chancellor, and Roger Bacon. Grossetête opened the way for Aristotle, not only by teaching his philosophy, but also by securing the translation of his ethics. His range of thought and study was so great that he was at home at once in physical science, linguistics, and theology, and was also accorded high rank as an agriculturist, physician, lawyer, preacher, and French poet. Moreover, besides being an independent theologian and great ecclesiastical statesman, he was one of the stanchest champions of the rights of the English Church in defiance of both Pope and King. He encouraged theological studies, but insisted on keeping the distinct line of separation between theology and philosophy observed by the Latin fathers and the earlier mediæval doctors.

Roger Bacon was of a different type. He made himself of special and incalculable value by pointing out and bravely condemning the vices of scholasticism—the wasting of time and intellectual energy upon a few metaphysical questions, the solution of which was as yet impossible, owing to the blind deference to authority in science and philosophy as well as in religion, to the abuse of syllogistic reasoning, and to the neglect of observation and experiment. Notwithatanding his attitude of criticism of scholastic methods, his participation in the scholastic discussions was an important event in the history of that philosophy. To him has been attributed Oxford's antagonism to the Dominican teaching. He was prior to Duns Scotus in his criticism of the Thomist doctrine of "unity of form." In his doctrines of "universals" and in other metaphysical doctrines he is regarded as having anticipated the fundamental ideas of the great Ockham. To his high conception of the value of mathematics, in both education and scientific inquiry, was largely due the prominence enjoyed by Oxford in that department—the honor of doing the best teaching in that field, and of claiming the two best mathematicians of the thirteenth century.

The writings of Roger Bacon were hardly more remarkable for his anticipations of

[a] Rashdall, II, 519–520.

modern thinking than for his plan of educational reform, his theory being that mathematics and the ancient languages were the proper foundation of science, medicine, philosophy, and theology; that science must be studied mathematically and experimentally, and that philosophy and theology should, on the other hand, find their basis in philological and historical studies.

The University of Oxford, as compared with that of Paris, was more conservative in the whole realm of philosophy. Indeed, at a later period—say by the middle of the fourteenth century—it was recognized throughout Europe as the center of scholasticism. The disposition to make an independent study of nature had declined, and Oxford entered into the scholastic strife with yet greater zeal than Paris, where, indeed, and in whose university, it was the English "nation" that took the lead of all others. And so with the revival of realism in a new form by Duns Scotus, and with the nominalistic reaction led by Ockham—both of these were Oxford men. The leading schoolmen of the fourteenth century, and nearly all of any note yet later, were either Englishmen or Germans educated in the traditions of the English nation at Paris.

After Scotus followed the keen analysis and vigorous criticism of William of Ockham, under whom nominalism took a ready root; whose theology, though in other respects orthodox, was openly against the Church as to what should be the relations between the Papacy and the civil power, while at the same time he was an earnest champion of Franciscan superstition.

As intimated before, there was a greater breadth of thought at Oxford in the thirteenth century, as compared with Paris, as well as little of the scepticism or pantheism so hard to overcome at the Parisian center. There was at Oxford more intellectual freedom during the fourteenth century, and hence no inquisition and no fierce punishments for heresy until the statute for burning heretics in 1401.

It should also be remarked in this connection that, while the nominalism of Ockham was for a time triumphant over the realism of Scotus, there came a reaction against the extravagances of Scotus within the ranks of his own followers, led by that famous schoolman and religious reformer, John Wycliffe, who, while an opponent of Ockham in metaphysics, yet as a political thinker following in the steps of that great scholastic doctor, the intellectual leader of his day, and in politics the champion of secular authority against the usurpations of the Papacy, made a great impression of his own upon the intellectual movement of the time, which was destined to endure long after his death. Even the victory of Archbishop Arundel over the university and Lollardism in 1411 was unequal to entirely neutralizing the leaven of Wycliffe's teachings, to which are traceable, as scarcely to those of any other reformer, the growth of intellectual and religious freedom during the fifteenth century.

It thus appears, even from these few facts of history, that the services of Oxford University, and of her many original, brilliant, and heroic workers in all the great fields of intellectual and religious endeavor, won for her immortal honor and gave her a most conspicuous place among the world's mediæval universities.

II.—OXFORD IN THE MODERN ERA.

Mediæval Oxford had its beginning of what could be called university life as late as the latter half of the twelfth century. Previously it had been, as Mr. Brodrick, of Merton College, has styled it, "a loose aggregation of students under the paramount jurisdiction of a bishop resident at Lincoln." It was not until the end of the old and the dawn of the new era that it had an organization, enjoyed the protection of the King, and became a power in the affairs of the nation.

The university contributed greatly to the revival of classical learning, as to which Erasmus, the foremost of its promoters, was enthusiastic over what had already been accomplished at Oxford by Colet, who has been regarded as one of the

most influential leaders in the field of Latin scholarship; by Grocyn, who upon his return from study in Italy gave the first public lectures on Greek in Exeter College, and by Lynacre and others. Indeed, by the close of the fifteenth century there had been so marked a growth of Oxford and Cambridge in classic culture that Erasmus claimed for England a rank higher than either France or Germany, and second only to Italy.

But the greatest step forward in the history of Oxford, as of universities in general, came through the improvements in the arts of printing and paper making, and the discovery of the New World. It is wonderful how much had been accomplished before the coming of the printing press gave the means of laying books without stint before university students and the civilized world, notwithstanding the fact that the previous books had been in the Latin tongue, and therefore limited in their usefulness, in a very large degree, to the learned class of the people.

Richard Fox, Bishop of Winchester, has the honor of having first duly endowed lectureships (professorships) at Oxford for both the Greek and Latin languages. They were established in connection with Corpus Christi College, and as part of a new endowment of it. Fox, in thus making provision for twenty fellows and twenty students, also made the innovation of offering the colloquial use of Greek as an alternative of Latin, and of choosing professors from southern Italy and Greece.

Curiously enough, there was strong opposition to the introduction of Greek by a combination calling themselves "Trojans." Their opposition proved fruitless, however, for the classics had powerful friends at the seat of government, and Henry VIII seems to have required no urging to induce him to issue a very positive order in support of Greek teaching, as early as 1519. Besides, Wolsey, the great cardinal, then a power in the state as well as in the church, was an earnest friend of learning, and did not forget Oxford or to see what reforms were needed, and soon found himself so completely possessed of the confidence of the authorities of the university that they were pleased to place its charters in his hands for any changes he might deem desirable. This was in 1518, and in 1523 he returned the old charters with a more liberal and excellent one, fresh from the hand of the King, and granting to the university practical independence.

Wolsey, moreover, undertook the forming of a new college at Oxford, to be known as Cardinal College, to that end suppressing, by authority of pope and King, priories and convents sufficient in number to create a revenue of £2,000. But death overtook him and put an end to what was considered a magnificent enterprise. Among the many distinguished friends of the university he had been foremost, so that Shakespeare did but duly honor him when he said:

> "He was most princely: ever witness for him
> Those twins of learning that he raised in you,
> Ipswich and Oxford! one of which fell with him,
> Unwilling to outlive the good that did it:
> The other, though unfinished, yet so famous,
> So excellent in art, and still so rising,
> That Christendom shall ever speak his virtue."

While the power of the King was such that he had pretty much his own way in things temporal, yet there were things which he could not do without the authority of the head of the church, or his approval. Among these was his divorce of Catherine of Aragon, without just cause, and his marriage to Anne Boleyn. The replies from the universities regarding the legality of the divorce were by no means unanimous, and among the dissenters was Oxford. Notwithstanding threatening letters from the King many of the masters stood by their convictions, and the consent of the university convocation was only procured by their exclusion when the vote was taken. Unable to forgive this "disloyalty" of some, Henry again (in April, 1530) visited Oxford, and took back the charters, not only of the university, for which

he maintained a sincere and friendly interest, but also the charter of the city, which had of late shown itself opposed to some of the privileges the university had enjoyed. The retention of the university's charters for a period of thirteen years was, in the nature of the case, a serious embarrassment.

But the disgraceful act of compelling the consent of convocation to the King's unrighteous act, and the wresting of charters in April, 1530, did not stand alone. In 1531 the clergy were constrained to acknowledge Henry as "head of the church and clergy, so far as the law of Christ will allow;" and in 1532 Parliament was induced by him to enact a law prohibiting all appeal to Rome. In 1534 the university concurred in the separation from Rome, by which Henry VIII became the "supreme head of the Church of England," and in the following year a visitation of the university was instituted for the purpose of establishing ecclesiastical uniformity and the substitution of a larger measure of the classics for the old scholastic teaching. The study of Aristotle was enjoined upon the university, together with that of the Bible. The university was exempted from the payment of tenths granted by statute to the Crown, on condition of such classical lectureships being founded as the King might assign. The support of these lectureships was charged upon the five richest colleges. At the same time Henry, of his own motion, founded and endowed with a stipend of £40 each five regius professorships—of divinity, Hebrew, Greek, civil law, and medicine—and he in some measure carried out the noble purpose of Cardinal Wolsey concerning "Cardinal College." It would be well if rulers and the representatives of the people everywhere could rise to such an appreciation of the higher learning as, according to Holinshed (quoted in Brodrick's Oxford, p. 79), was shown by Henry in his royal answer to the courtiers about him, who would have been pleased to have him deal with the colleges and universities as he had with the monasteries (by defacing and even tearing them down), whereupon he sternly said:

"Whereas we had a regard onlie to pull down sin by defacing the monasteries, you have a desire also to overthrow all goodness by subversion of the colleges. I tell you, Sirs, that I judge no land in England better bestowed than that which is given to our universities. For by their maintenance our realm shall be well governed when we are dead and rotten. I love not learning so ill that I will impair the revenues of ainie one House by a penie, whereby it may be upholden."

The writer who said that at the beginning of Edward's reign the university was far less prosperous than it had been under Wolsey was far too mild in his account; for his reign was, in fact, from first to last, a period of direst calamity. The number of students grew less and less, the number of halls dwindled accordingly, and comparatively few degrees were conferred. The university had become a scene of religious conflict of the most uncompromising sort. Accordingly, a royal commission of visitation to look into the condition of the university not only framed new statutes for both Oxford and Cambridge, without trace of popery left in the constitution, but also drove out all dignitaries charged with favoring any articles of the old faith, destroyed everything suggestive of it, such as architectural ornaments, images, statues, and, of course, altars, and gave to the flames great quantities of classical and scientific manuscripts, some of them beautifully illuminated by masters of the art. The truth is that after a suppression of the canon law almost the only good the commission did was to encourage the study of civil law, ancient philosophy, Hebrew, logic, rhetoric, mathematics, and medicine; though it is also to their credit that they provided for matriculation examinations in grammar and Latin, for examinations after lectures, and that fellowships, besides being terminable, should also be tenable only on condition of a six months' residence at the university.

Nevertheless the spirit infused by Wolsey, with the help of a few heroic coworkers, had so far died away that the importation of eminent foreign divines and other means employed to revive it were unavailing. Teachers of the civil law left their

places for a more peaceful service at Louvain; studies generally lost their powers of attraction, and the best of the professors and lecturers one after another disappeared.

The condition of Oxford, so unhappy under King Edward VI, became yet more deplorable under the reign of Queen Mary.

Yet during Mary's reign, two new colleges, Trinity and St. John, were founded by Roman Catholics on the ruins of monasteries, and Mary conferred upon the university a number of favors; but at the same time, acting by her authority and that of the Pope, Cardinal Pole inaugurated a new visitation in 1556, which many times canceled all the real good she had done by hunting down obnoxious persons yet remaining in Oxford, by burning in the market place all the English Bibles that could be found, and by so revising the university and college statutes (by repealing Edward's statute allowing the use of the English language in and about the university, and otherwise) that she alienated completely many who might otherwise have remained in active sympathy with the university.

The crowning of Elizabeth in November, 1558, brought another turn of the university wheel; but her rule was far different from that of Mary. There was naturally a measure of reaction, but it was comparatively moderate, for she was really more of an Anglo-Catholic than a Protestant, and meant to restore peace and promote the welfare of the institution with less regard to ecclesiastical differences; and she would have recalled to its service distinguished exiles of both parties where the reason seemed imperative. Characterized in part by qualities much like those of Mary, she also possessed remarkable judgment as well as the courage and strength of will requisite to the undertaking of whatever policy seemed to her best. The visitors whom she appointed were to "make a mild and gentle, not rigorous, reformation." And it was comparatively mild. Yet the heads of nine colleges, the dean of Christ Church, and a few canons were made to give place to Protestants; while such fellows as refused the oath of supremacy were removed.

Through Elizabeth's influence Robert Dudley, Earl of Leicester, held the chancellorship so long that the university finally fell into the rut of uniformity, and lost the spirit which a change of administration might have inspired. He did, however, a very good service when he induced Parliament to incorporate the "chancellor, masters, and scholars," which saved the institution from the risk of obtaining new charters from successive Kings.

The Queen's two visits to Oxford (1566 and 1592) were showy demonstrations. Leicester took an active interest in the administration of the university, mainly with beneficial results. The most permanent monument of his adminstration, however, is the test of subscription to the famous Thirty-nine Articles and the Royal Supremacy to be required of every student over 16 years of age. This rule, which was intended to exclude papists from the university, was mainly felt by the descendants of the Puritans. Thenceforth the university, once opened to all the world, became narrowed to a Church of England institution. Only in recent years have these restrictions been lessened.

James I, notwithstanding the fact that he entered upon the exercise of his powers when the conflict was sharp between the Puritans and the high-church party, was quick to perceive the importance of the influence of the universities, and was pleased to make a manifestation of his interest by commanding at the very beginning of his reign that each of the two universities should choose "two grave and learned men, professing the civil law, to serve as burgesses in the House of Commons." He also made a visit to Oxford in 1605, entering the city upon horseback with an imposing cavalcade of nobles and courtiers, to be received, as Elizabeth had been, with costly banquets and pompous ceremonies.

James was a true friend of the universities and meant to show them other favors, as the times and conditions should allow. He also had in view a reform of the

church, and frankly pointed out to the chancellors of both Oxford and Cambridge the evils resulting from a diversion of church revenues "by means of impropriation to private aggrandizement." In his initiation of an authorized translation of the Bible he selected learned men from both universities, Oxford furnishing seven heads of colleges and four other of the clergy, who afterwards became bishops. Under appeal from William Laud, president of St. John's College, who by this time (1616) had become a power in the university, there came about the order for subscription to the three articles in the thirty-sixth canon by every candidate for a degree, "for strict attendance on university sermons, and for the enforcement of other safeguards against heterodoxy;" also, in 1622, the university convocation showed its obsequious loyalty by burning the works of Paraeus, professor of divinity at Heidelberg, who advocated resistance to royal authority when tyrannically exercised in religious matters, and by a declaratory resolution in positive terms "condemning resistance to a reigning sovereign, offensive or defensive, upon any pretext whatever."

Notwithstanding all these pitiful manifestations of servility on the part of its convocation, the university gained strength and enlarged its influence during the reign of James I. This movement was manifested by new buildings and new endowments, the beginning of the "new schools," and the founding of two additional colleges—one by the widow of Nicholas Wadham, in 1610, under a royal license, and known as Wadham; the other, known as Pembroke, by the King himself, though at the actual cost of others; besides which six new professorships were instituted during his period, among them being the Savile professorships of geometry and astronomy, which have since become famous. As a consequence, the university grew in favor, so that in his last decade the residents (officers, professors, other teachers, and students) numbered between two and three thousand, with increase from year to year, until the upheaval of the civil war under his successor.

Charles I was also well disposed toward the university, and would probably have done more for its furtherance than he did had he been blessed with advisers other than Buckingham for matters of state and Laud in those of the church. Laud, though too intense in his Arminian prejudices, and too strongly in sympathy with the absolutism of the King, did not forget the university, but was determined to have his way at whatever cost. From the accession until 1630 he was simply dean of Westminster, and thus escaped the immediate trials which came of the occupation of the buildings of the university for a time (in 1625) by the Parliament on account of the plague at London. But he was, nevertheless, the King's adviser just the same, and was practical dictator in the committee appointed by the King for a settlement of the disturbances which attended the election of university proctors in 1628; and in 1630, upon the death of the Earl of Pembroke, he was elected chancellor.

During his incumbency of eleven years Laud was so active and vigilant a head of the university that nothing escaped him, not even the smallest details of student life, much less the religious bearing of all members of the university who gave the slightest signs of sympathy with Puritanism or Calvinism.

It will not be denied that Laud's most important work was that of framing and finally promulgating the statutes which came to be known as "Laudian" or "Caroline," and which governed the university for two hundred years. Up to his time the statute making had been more or less in the hands of the university itself (the congregation or convocation). This new "corpus statutorum" was revised by Laud, a copy was posted by him in each college or hall for a year for the convenience of any who might wish to make suggestions; it was then confirmed by the King, and finally, in all humility and thankfulness, was formally accepted by the university convocation itself. Its general drift was oligarchic. The public election of proctors was superseded by a private election limited to doctors and masters of a certain standing in each of the colleges; it provided that the vice-chancellor

should be annually nominated by the chancellor from the heads of colleges with the approval of convocation. He was thus the agent of the chancellor and the actual ruler of the university (the chancellor becoming an ornamental personage), guarding the university pulpit from heterodoxy and clothed with many powers in the work of administration.

In the matter of studies the new statutes made requirements so far superior to those of a later day that it may be doubted whether they were strictly enforced. Thus a candidate for the degree of bachelor of arts, already master of Latin and other preparatory studies, must have spent four years in the study of grammar, geometry, rhetoric, the ethics, politics, and economics of Aristotle, logic, moral philosophy, and Greek, while the degree of M. A. meant three additional years spent more especially upon geometry, astronomy, natural philosophy, metaphysics, Greek, and Hebrew. Examinations were exhaustive, but after a century and a half the examination system of Laud became mostly a name.

Besides these contributions of labor and genius, Laud did much else that contributed to the prosperity and popularity of the university, such as giving to the library an important collection of Oriental manuscripts; founding and endowing a professorship of Arabic; procuring valuable gifts of many kinds; inducing the King to annex canonries of Christ Church to the professorship of Hebrew and the office of public orator; obtaining from the King the university's right of printing Bibles; securing to it a new charter; extending all its ancient liberties and privileges; and, as many believe, doing much toward the founding of the Botanic Gardens, as well as toward the establishment of the convocation house and the extension of the Bodleian library.

Even before his resignation of the chancellorship, in 1641, there were premonitory indications of the civil war, and no little disturbance of the studies at Oxford. But in the matter of discipline and of orderly conduct there had been noteworthy improvement since the days when Oxford swarmed with noncollegiate students and there was little power to enforce regulations, however good, though even yet there was little of decent courtesy among students, and occasional town and gown outbreaks occurred, as of old. King James had deprecated rough sports because they brought crowds together and might lead to disorder.

Because of Charles's sympathy with the desire of the university to maintain the "apostolical order" of the bishops, Parliament, which was on the point of passing the "Root and branch bill" for abolishing episcopacy, was all the more determined to reject the petition of the university on behalf of episcopacy and the cathedrals which he favored. He firmly believed that "Learning and studies must needs perish if the honors and rewards of learning were destroyed," meaning the revenues of church preferment for university graduates, and "would rather feed on bread and water than mingle any part of God's patrimonie with his own revenues." On the other hand, the House of Commons proceeded to pass the "grand remonstrance," which was the famous general indictment of the Crown and appeal to the people of England, and soon after the rupture between King and Parliament was complete. The university received a "protestation" from the speaker of the house, to be subscribed by the vice-chancellor and heads of colleges, binding them to maintain Protestantism and the union of the three kingdoms. This was in February, 1642. In August the King raised his standard at Nottingham, and in the September following parliamentary troops were occupying Oxford and its university in order to make sure of the treasures known to be there; but on October 29 Charles I marched into Oxford at the head of an army, making it not only his base of military operations, but the seat of the royal government also. It had previously contributed money and college plate to the King's cause, and many graduates and students had enrolled themselves in response to a royal proclamation. The King was welcomed both by the university and the mayor and leading citizens of the town, the former expressing

its devotion in Latin addresses and by conferring degrees on the noblemen and courtiers of his train. The different colleges were converted into military quarters and lectures and exercises were nearly suspended, the less loyal students leaving the place. The arrival of the Queen in 1643 was celebrated with great ceremony. Oxford presented the aspect partly of a royal residence and partly that of a camp, instead of a seat of learning, for three long years.

Three years later, and a new scene of the military history of Oxford was witnessed. It was Fairfax at the head of a besieging force and demanding of Sir Thomas Glenham, the governor, the immediate surrender of Oxford, and yet in terms so moderate and so mindful of the university as to be always remembered to the honor of his name. These were his words: "I very much desire the preservation of that place so famous for learning from ruin, which inevitably is like to fall upon it unless you concur." Repeated conferences were had, and after nine days (on June 20, 1646) a surrender was agreed upon; the conditions being that both the city and the university should "enjoy all their ancient privileges with immunities from taxation;" that the colleges should "enjoy their ancient form of government, subordinate to the immediate authority and power of Parliament, * * * and that all churches, chapels, etc., shall be preserved from defacing and spoil;" also, that if any removals were made by Parliament the persons removed should retain their emoluments for six months.

On the 24th of June the royal garrison of 3,000 troops marched out of Oxford, with colors flying, and both its citizens and such officers and students as had remained took a long free breath once more, though so nearly starved that even those most needy were constrained to divide with their suffering neighbors; and All Souls passed an ordinance that "there shall be only one meal a day between this and next Christmas, and so longer, if we shall see occasion." All the buildings of university and colleges had been seriously damaged; supplies of every sort, as well as plate, were gone. In fact, as Anthony Wood has said, "In a word, there was scarce the face of an university left, all things being out of order and disturbed;" and the university was impoverished by the sacrifice of its money and plate for the King.

Charles had escaped in disguise even before the appearance of Fairfax, but his work for the university had now ended. Parliament was in control. Its first act touching the university was to pass the ordinance of May 1, 1647, "for the visitation and reformation of the University of Oxford and the several colleges and halls therein;" the object being "the due correction of offenses, abuses, and disorders, especially those of late times committed there." The visitors were 24 in number, 10 clergy and 14 laymen, but very soon by the absence of laymen became practically an ecclesiastical body. Moreover, it soon became manifest that its work, which included an inquiry concerning those who had not taken the "solemn league and covenant," those who had opposed the Parliament in arms, etc., was designed for the promotion of Presbyterianism rather than for the university's advancement. The proceedings of the visitors became more and more arbitrary as time went on, until the entire management of the university was given them; complete subjection to the Parliament was enforced by expulsions of heads of colleges, and even military aid was brought in to enforce obedience to the Parliament. Meanwhile Fairfax and Cromwell visited the university in May, 1649. They were handsomely entertained, and the university authorities were addressed by Cromwell in terms which gave assurance of his regard for learning and of his desire to promote the welfare of the university for the sake of the Commonwealth. A little later he became chancellor, but limited himself chiefly to the appointment of Dr. Conant, rector of Exeter, to the vice-chancellorship and in 1657 resigned, after presenting the university with a valuable collection of manuscripts. The parliamentary visitation ceased in 1658, when a general reaction against Puritanism was setting in all through England, and the university recovered its independence. The visitation had really fostered

learning, or rather had not stifled it, notwithstanding its political severity. "The academical population was already larger than it had been in the reign of James I". (Brodrick), while there were quite as many scholars and divines. Clarendon, quoted by Brodrick, states that Charles II found the university "abounding in excellent learning."

After the Restoration Charles II, like his father, proved himself friendly to the university by repeated visits, and in 1681 held his Parliament at Oxford—the last ever held in that city. A number of important improvements in both city and university were made during his reign, among them the building of a great theater by Gilbert Sheldon (at first warden of All Souls, then Archbishop of Canterbury, and in 1667 chancellor) at a cost to himself alone of £25,000, Christopher Wren acting as architect. But his most important part was done when in June, 1660—steps toward a "free parliament" having already been taken—he sent or caused the sending of a new set of visitors to Oxford to see to the undoing of what had been wrongly done during the "usurpation." Of course the expelled royalists who had survived were recalled. Besides which an act of uniformity provided that candidates for a fellowship should make, in the presence of the vice-chancellor, a declaration of conformity to the liturgy of the Church of England, a provision which rendered the position of Puritans practically untenable and made Oxford again a school for the clergy and gentry. During the political disturbances of the civil war, as well as after the Restoration, there was great intellectual activity at Oxford. The Royal Society held its early meetings there, its founders being largely Oxford men. During this period, too, the change from scholastic disputations to *literæ humaniores* took place in examinations, and the fashion of writing Latin sonnets as an accomplishment was introduced, which became a prominent literary feature of the university. In the latter part of Charles II's reign there was a decline of the university, which the historian Wood ascribes—

(1) To the continued expectation of another Parliament to be held at Oxford and occupy the university buildings to the exclusion of teachers and students.

(2) To the fear on the part of the Whigs (in harmony with Parliament) that their sons, if sent, would become Tories.

(3) To the ground that the university was suspected of sympathy with the Romish Church.

The last act of the university convocation under his reign was to issue a decree condemning resistance to a king, and the last of Charles's own acts touching the university was to order the removal of John Locke from his studentship upon a grossly false charge of disloyalty.

James II characteristically disregarded the privileges of the university; for notwithstanding the university's remarkable proofs of loyalty to him by affording volunteers for his cause and celebrating the victory of Sedgemoor, besides other acts less noteworthy, yet all of them entitling it to his gratitude, he brutally overrode the elective rights of some of its colleges, or attempted to do so, going so far as to visit Oxford in September, 1687, and in person using threats to insure obedience to his nomination of an unworthy head of Magdalen College. To its everlasting honor, Magdalen refused obedience and took its own course in a manner that won the respect of the nation and contributed not a little to his downfall.

The eighteenth century was almost barren of results for the university. William and Mary did little or nothing for its benefit. The university was strongly Tory and was so demonstrative when the rebellion in Scotland broke out in 1715, that it was necessary to quarter a regiment of troops in Oxford to overawe the Jacobites of the university, whose hostility to the House of Hanover was outspoken. Jacobitism, however, gradually waned; George II was friendly and became the recipient of grateful acknowledgments because of a concurrence between the King and university on religious grounds, and George III so won its favor by his dissolution of the coali-

tion ministry, and transferring his confidence to William Pitt, as to receive its public acknowledgments, in return for which he was pleased to visit Oxford in both 1785 and 1786. Stagnation at the university so prevailed that the institution was in strong terms reproached by such men as Adam Smith, Lord Chesterfield, Lord Malmesbury, Lord Eldon, and Edward Gibbon. One refers to the inefficiency of professors and tutors; another speaks of the "drinking strong ale and the smoking of tobacco as the chief accomplishments;" another condemns the examinations as being "merely nominal;" and numbers of others equally trustworthy noted still other faults and deficiencies.

Brodrick declares it "certain that Oxford contributed far less than in former ages to politics or literature," and that "in learning it was distanced by Cambridge, where the modern examination system was developed earlier, and where the immortal researches of Newton and the solid learning of Bentley had raised the ideal of academical study."

But in justice it should be added that a number of distinguished men have in a measure discounted these severe judgments, among them Bishop Lowth, Lord Sheffield (editor of Gibbon's Memoirs), John Wesley, Dr. Samuel Johnson, Sir William Jones, and the illustrious Berkeley; and it should be remembered that the epoch-making Methodist movement had its origin at Oxford at this time. But the eighteenth century was also signalized by scientific activity at Oxford. The Regius professorship of modern history was established by George I in 1724. In 1749 the first professor of experimental philosophy was appointed. In 1780 the clinical professorship was established, in 1795 the professorship of Anglo-Saxon, and in 1798 that of anatomy, medicine, and chemistry.

As for the history of Oxford during the nineteenth century, Dr. Brodrick, warden of Merton College, would divide it into two periods—the first to the date of the reform act of 1832 and the ecclesiastical reaction which followed; the second embracing the last few years of the reign of William IV and the whole reign of Victoria. He quotes the Oxford University commission, named in 1850, as declaring that up to the statute passed in 1800 the studies of the university had been for a considerable time in an "abject state." The system introduced by Laud had failed, because it furnished no guaranty for the competency of examiners or against their collusion with candidates for degrees, who in turn were left without inspiration or hope of distinction. Credit for the curative statute of 1800 is given to Dr. Eveleigh, provost of Oriel. He based the new statutes on the Laudian system, which presupposes an inherent supremacy in the faculty of arts, specifying grammar, rhetoric, logic, moral philosophy, and the elements of mathematics, but adding Latin and Greek literature, as the subjects essential to examination. His original and very important remedy for the stagnant condition of things was a system of examinations that would vigorously arouse and make alive both teachers and students. Candidates for degrees could content themselves with what is now known as a "pass," which stands for a bare squeeze through the graduate gate, or, if ambitious, could win "honor" degrees. Moreover, the honor list was divided into two classes and the names of honor men were arranged in the order of merit. The M. A. degree was also to depend on another examination in advanced studies, such as the higher mathematics, history, and Hebrew. The same with civil law, the degree in which, resting primarily upon the degree of A. B. or an examination in the branches requisite thereto, finally depends on examinations in jurisprudence and history. Moreover, the examiners were to be paid salaries for their services, and were to serve for terms of several years, after solemn pledges of faithful and impartial service.

Proof of the practical value of the reform instituted by Eveleigh is found in the fact that in the very year after it went into operation the number of B. A. degrees rose to 250, "largely exceeding the average of degrees and even of matriculations in several preceding years."

In 1876 a bill, which had its origin in Gladstone's initiatory commission of 1872, inquiring into the financial condition of the colleges and the university, was introduced by the Marquis of Salisbury, who was at the same time chancellor of the university and an important member of the Government, with the intent to strengthen the university by such diversions of college funds as should seem proper. Somewhat amended, it was passed in 1877, instituting an executive commission with "sweeping powers of revision and legislation," which for the most part seem to have been wisely exercised. Accordingly the past half century has been characterized by many important changes for the better.

Passing in review the several halls, including two for women, the many colleges, with their stately and beautiful edifices of varied architecture, mediæval and modern, a stranger unfamiliar with the history of Oxford would doubtless look around inquiringly for the university itself. If persistent, he would find that it exists, though in an intangible form. It has its convocation house, its own libraries, especially the Bodleian; its museums, its special apparatus for teaching, and its own "university chest" or treasury. There are also at Oxford four nonresidential theological institutions, namely, Wycliffe Hall, Pusey House, Mansfield College, Manchester College. Mr. J. Wells, fellow of Wadham College, says:

> I should say that Oxford is a federal republic of colleges. As every citizen of the United States is a citizen of some special State, so every Oxford man is a member of some college; and so the Bodleian Library and university chest at Oxford may compare with the institutions (Congressional Library and National Treasury) at Washington.

The institutions supported and controlled by convocation are these: The Bodleian Library, the Radcliffe Library (scientific), the Taylor Institution (modern languages), and the Sheldonian Theater.

The museums are: The Ashmolean, the university museum, the university galleries, the Pitt-Rivers (anthropological), the Indian Institute, and the botanical garden and collections.

The press, so fruitful of valued products, is known as the Clarendon.

The observatories available are the university observatory and the Radcliffe, the last named being under its own trustees.

The university is a sovereign body of some 13,000 men, whose names are on its books as well as on those of some one of the 23 colleges. They are resident and nonresident.

The federal government of the university consists of two branches, the legislative and the executive.

The executive officers of the university are:

(1) The chancellor, who is chosen by convocation for life and has been for centuries some nobleman of distinction, usually nonresident, whose powers are to a large degree judicial as well as executive, and whose duty it is annually to delegate his authority to a vice-chancellor of his nomination.

(2) The vice-chancellor, who, according to Louis Dyer, M. A., author of Oxford As It Is, is required to live at the university to see "that all statutory meetings, lectures, and the like, take place in due order, and that only worthy men be promoted to degrees;" to inquire into reported wrongdoing and punish offenders against the statutes; with the proctors and lesser officers to exercise a general oversight of all university records, registers, property, and affairs, as well as a guardianship of the rights and liberties of the university—to this end also serving as head of the vice-chancellor's court.

(3) The proctors, senior and junior, who are chosen from among masters by the several colleges in rotation, and whose function it is to enforce the university and college discipline.

(4) Professors, lecturers, tutors, and other subordinate officers.

The legislative and administrative bodies which constitute the governing powers are:

(1) The convocation—a body of some 6,000 graduates, who have taken the degree of M. A., or that of D. D., or D. C. L., or M. D., and who are resident or nonresident. It is the supreme body with the most important of appointive rights and the right of conferring degrees granted by either diploma or decree.

(2) The congregation—a comparatively small body, consisting in any given year of such members of the convocation as have resided in Oxford for at least one hundred and forty days during the previous academic year. Its function is to receive and approve or reject measures of legislation originated below, and finally to submit the same to convocation for approval or rejection without amendment.

(3) The hebdomadal council, composed of the vice-chancellor, the ex-vice-chancellor (during the first year of his retirement), the proctors, and 18 members elected by congregation. Its sole prerogative is to initiate measures and pass them on to the congregation.

(4) Delegacies (standing committees) of convocation, acting in its behalf: (1) In the work of superintending the instruction of selected candidates for the civil service of India; (2) in the training of elementary teachers; (3) in conducting local examinations; (4) in the examination of schools; and (5) in the extension of teaching to points outside of Oxford, the number of such at present being 200. Summer schools or vacation lectures come under the delegates for extension of teaching.

Mr. Wells, of Wadham College, has said: "The faults of the English universities have been mainly due to the fact that they have reflected only too faithfully the aristocratic organization of society in England. They have given their best to the few, but they have not reached the many." And yet he appears to have so long deplored this great fault as to have unduly lost heart and overlooked the many changes of recent years. The aristocratic element has not yet been extinguished; ecclesiasticism, though still supreme, has in good part yielded up its despotism of the mediæval times; and the proportion of "pass" graduates will grow less and less under the changed condition of things brought about within the past few years—changes so clearly and concisely set forth by the able warden of Merton College, already more than once quoted, that I can not do better than to borrow his words of the year 1900, namely:

The introduction of representative government into the academical constitution has not only cleared away many abuses, but has at once popularized and centralized university administration. The recognition of unattached students [connected with no college] has broken down the monopoly of colleges; the abolition of close fellowships has infused new blood and new ideas into the more backward collegiate bodies; the spontaneous development of numerous clubs and associations—athletic, literary, or political—has created many new ties among undergraduates, and weakened the old exclusive spirit of college partisanship. The "combined lecture system," under which the inmates of one college may receive instruction in another, has also favored a division of labor among tutors which is directly conducive to specialism in teaching. The great extension of the professoriate, including the new order of university readers, and still more the liberal encouragement of new studies, has infinitely expanded the intellectual interests both of teachers and of students; the admission of nonconformists and the progress of free thought have powerfully modified theological bigotry; the multiplication of feminine influences has undermined the ideal of semimonastic seclusion, and greatly increased the innocent æsthetic distractions which are the most formidable rivals of the austerer muses. The gulf between Oxford society and the great world outside, never very impassable, has been effectually bridged over in every direction. A very large proportion of professors and college tutors have traveled widely; many are well known in London as contributors to scientific and literary periodicals, or otherwise; while Oxford itself is constantly thronged with visitors from the metropolis. In ceasing to be clerical and aristocratic, the university has become far more cosmopolitan; all religions are there mingled harmoniously, nor is it uncommon to meet in the streets young men of Oriental race and complexion wearing academical costume.[a]

[a] Brodrick's History of the University of Oxford, pp. 220-221.

Dr. Brodrick also claims that "in the meantime a marked and widespread reformation has been wrought in the morals of the university," and that "the ostentation of wealth has been visibly diminished."

THE BODLEIAN TERCENTENARY.

[On the 8th of October, 1902, was celebrated the tercentenary of the Bodleian Library. In reference to this event the Fortnightly Review published (October, 1902, pp. 637-647) an historical review, by J. B. Firth of the institution, from which the following particulars are cited.]

Early this month the University of Oxford will celebrate the tercentenary of one of its most famous and picturesque institutions, the Bodleian Library. Its doors were first opened to readers on November 8, 1602, but the commemoration has been antedated by a month, so that it might not fall during term time, when the colleges would not have been able to offer adequate hospitality to the distinguished representatives of the chief libraries in this country and abroad, and of many foreign universities and learned societies, who are expected to be present. The event is of interest to all friends of learning and to all lovers of books, for the Bodleian, though not the largest library in the world, is certainly the most romantic and the most fascinating. There is no other which can compare with it in the charm of its setting; none which is so essentially the work of one pious founder. Who, for example, thinks of the British Museum as having grown up round the library which Sir John Cotton presented to the nation? Like the Bibliothèque Nationale in Paris, and the Library of Congress at Washington, the British Museum is simply a great institution of State, supported by public moneys, thoroughly impersonal, and making little or no appeal to sentiment. But the Bodleian, or rather Bodley's Library—to give it the title by which it was always known during the first two centuries of its career—makes an intimate and personal appeal to all who climb the winding staircase which gives access to its ancient galleries and halls. The spirit of Sir Thomas Bodley pervades them; one feels instinctively that here is the handiwork of a single man, and that a single brain devised the whole magnificent scheme. The librarian is still Bodley's Librarian. Bodley is, and must ever continue to be, the presiding genius of the place.

As his praise will be on the lips of all those who attend the tercentenary of the opening of the library, a word may be said of the circumstances which induced him to embark upon such an enterprise. The University of Oxford was without a library when Thomas Bodley entered at Magdalen College in 1560, as a boy of sixteen. He had already been well grounded in all the voluminous learning of Geneva, whither he had been taken in childhood by his father, a Devonshire Protestant from Exeter, who had been driven to fly from England during the Marian persecutions. The youthful Bodley had studied Greek with Beroaldus and Constantius, and Hebrew with Chevalerius. Beza and Calvin had taught him theology, and as the fiery Knox was also living in exile in the Swiss city of refuge, Bodley probably had often "sate under" him and learned from his discourses the principles of religion and the applications of rhetoric. But when he went to Oxford he found the old university library denuded of books, and stripped of the shelves to which they had been chained. Even the benches of Duke Humphrey's library had been sold five years before, and the hall was desolate.

The story of this pre-Bodleian library is a curious one. There is no mention of a university library in Oxford before the beginning of the fourteenth century. Such few books as there were belonged to the colleges or to the monkish communities which had habitations there, and it was not until 1320 that Thomas Cobham, Bishop of Worcester, laid the foundations of a university library. The beginnings were small, merely a chestful of books kept in the University Church of St. Mary. Then, in 1367, a room 45 feet by 20 was built over the old house of congregation, which

stood in the northeast corner of the church. It was erected leisurely, for it does not seem to have been finished for forty-two years, and the enthusiasm of the authorities can hardly have been overpowering. This chamber, which also served the purpose of a lecture room for the Professor of Law, constituted the university library until it became inadequate to hold the books which were presented to it by Duke Humphrey of Gloucester. * * *

We can forgive much to the long-forgotten schoolmen of his day when we remember their admirable taste in architecture. In 1426 the divinity school—one of the most exquisite examples of late Gothic architecture—was begun. It took many years to build, and while it was rising from its foundation the duke sent down to Oxford large consignments of manuscripts. The university was not ungrateful; on the contrary, we find the authorities presenting a memorial to Parliament in which they declare that the duke has magnified the university with a thousand pounds' worth and more of "precise books," and they beseech the speaker and the Commons "in their sage discrecions to thank hym heartyly and also pray Godde to thank hym in tyme comyng when goode deedes ben rewarded." When the books became too numerous to be accommodated in the upper room of the annex of St. Mary's Church, it was determined, in 1444, to carry the divinity school a story higher and build a more commodious place for their reception. This is now the central portion of the Bodleian Library and still bears Duke Humphrey's name. * * *

In 1550 the library suffered a crushing blow. The boy king, Edward VI, in the zeal of his Protestantism, published an edict for "the calling out of all superstitious books, as missals, legends, and the like," and commissioners were appointed to visit the universities for that purpose. In due course they came to Oxford and presented themselves at Duke Humphrey's library. There they worked havoc. They carried out their instructions so literally that they destroyed every illuminated missal or manuscript on which they laid hands. It is probable, indeed, that they condemned volumes at a hazard without regard for their contents, and that the mere presence of a rubricated initial was held to be sufficient evidence that a manuscript was Papistical and idolatrous. Possibly, too, in the confusion caused by such a visitation, books were freely looted and stolen; but the fact remains that after they had completed their visitation the library stood empty. Edward VI was no enemy of learning, as his foundation of Christ's Hospital and other schools throughout the Kingdom plainly shows. The dispersal and destruction of the library at Oxford were due principally to religious bigotry, but one can not help suspecting that the commissioners had some private reasons for venting their spite upon the books of Duke Humphrey's collection. Apparently the university acquiesced without demur; at any rate, after the commissioners had gone, the authorities made no attempt to repair the mischief which had been wrought, and five years later a delegacy of five "venerabiles viri" was appointed to sell the benches and bookshelves which had formed the furniture of the Duke's library. They did as they were bidden to do; the hall was stripped bare, and from 1555 down to the day when Thomas Bodley refounded the library the university had no books. * * *

It was in 1598, then, that Bodley wrote to the vice-chancellor offering to refound Duke Humphrey's library. He was a man ideally fitted to undertake such a work, and his qualifications, as he himself explained, were fourfold. He possessed "some kind of knowledge as well in the learned and modern tongues as in sundry other sorts of scholastical literature, purse ability to go through with the charge, great share of honorable friends to further the design, and special good leisure to follow such a work." Like most of the Elizabethan worthies, he was scholar and man of affairs combined. He had married the widow of a rich Bristol merchant, and apparently made free use of the lady's purse. His friends included the most influential men of his time, and he had the remainder of his life before him in which to carry out his project. Naturally his offer was accepted with enthusiasm, for he took upon

himself the cost of refitting Duke Humphrey's library with shelves and seats, procuring benefactions of books, and endowing the library with an annual income. The workmen found that the building itself had been allowed to get into a lamentable state of disrepair. The roof had become rotten and required to be replaced. Bodley thereupon persuaded Merton College to find the timber, and the exquisitely paneled ceiling, divided into square compartments, each bearing the university arms, which is now one of the sights of Oxford, was prepared and set up. Bodley was determined that his library should be lacking in nothing that might increase either its beauty or utility. He sent his agents all over the Continent buying manuscripts and books. The times were favorable to his design, for book collectors were few, money was scarce, and many of those who owned manuscripts were quite ready to sell. So his agents returned with many excellent bargains which they had made in Spain, France, Germany, and Italy. Bodley did his own book hunting in London, and was so successful in his search that by the time the library was ready for opening in 1602 there were 2,000 volumes chained to their cases.

One energetic man can accomplish much, and Bodley's efforts did not cease when he saw the completion of his self-imposed task. He devoted his life to the library, and the authorities at Oxford gave him an absolutely free hand to do as he thought fit. It was he who appointed the first librarian, one Dr. James, at the very modest salary of £5 15s. 4d. a quarter. Bodley insisted that his librarians should be unmarried—that they might have no domestic distraction from their duties—and though he exempted James from this regulation, it remained in force down to 1813. Nor was it until 1856 that the rule was abolished which enacted that a librarian should be unmarried at the date of his election. A much sounder regulation was that which forbade any volume being taken out of the library on any pretext whatever, "by any person or persons of whatsoever state or calling, upon any caution or offer of security for faithful restitution." The Duke's library had suffered grievously on this account; Bodley determined that his should not. This statute was faithfully observed even when kings sought to break it. When Charles I was in Oxford in 1645 and wanted to borrow D'Aubigné's Universal History, he asked permission from the vice-chancellor of the day. The vice-chancellor assented, but the librarian refused the books, and it stands to the King's credit that he took the rebuff graciously. "Let the will of the founder be observed," said His Majesty. It may be that he remembered the £500 which he had borrowed from Bodley's strong box three years before and never repaid. Nine years later Cromwell met with a similar refusal. * * *

In 1610 the eastern wing of the library was completed, and at Bodley's death, in 1613, the present picture galleries were nearing completion. * * *

Great, however, as his earlier benefactions had been, perhaps the most valuable day's work which Bodley did for the library was in 1611, when he obtained from the Stationers' company an agreement whereby they stipulated to send to the Bodleian a copy of every book entered at their hall. There is a tradition that Bodley presented the Company with a piece of plate, valued at £50, in consideration of this indenture, but it is impossible to say whether this was actually the case. But to have obtained such an agreement at all shows the provida mens of the founder, who by a stroke of the pen secured for the library the, at that time, unique distinction of being a depository of the national literature. Since 1611 the privilege has been extended to others. Cambridge secured it in the reign of Charles II. In Queen Anne's time it was granted to nine libraries; in George III's reign to eleven. It has been since restricted to five—the Bodleian, the British Museum, the Cambridge University Library, the Advocates' Library at Edinburgh, and the library of Trinity College, Dublin. But each successive copyright act has indorsed the original agreement which Sir Thomas Bodley so diplomatically obtained from the Stationers' Company. The result was that even when the university cared more for

poned in 1901, and the credit balance of £500 which was carried forward
esent year is therefore quite misleading.
come of £9,000 may seem large, but it is, as a matter of fact, entirely inade-
The extent of its deficiency may be judged by comparing it with the corre-
ng income of the British Museum. After deducting the cost of all the
tments in the Bloomsbury institution, to which there is nothing analogous in
Bodleian, the fact remains that the nation spends on the library of the British
eum a sum not far short of £70,000 a year. Yet this library is not more than
ce the size of the Bodleian, and when every allowance is made for the difference
ween them, for the greater number of readers in London and the inevitably
ger expenses connected with the British Museum, the relative poverty of the
odleian still remains sufficiently striking. At the lowest estimate its income ought
o be double what it is at the present time. * * *
The problem of finding accommodation for the annual increase of the library,
which amounts to about 17,000 ordinary octavo volumes, has long been serious. It
is now acute. Every inch of available space in the Bodleian itself and the adjoining
Radcliffe has been occupied. All the latest inventions for economizing room have
been adopted. Both garrets and cellars have been turned into storehouses, and the
books have begun to overflow into the subterranean regions of the neighboring
Sheldonian Theater. But the time is rapidly approaching when the policy of tem-
porary makeshift will have to be abandoned, when it will be necessary to build
either above or below ground. Plans have been prepared for the construction of a
vast underground and damp-proof storage house below Radcliffe square, which
would accommodate a million volumes, and it is not improbable that the scheme
would be adopted if the university has the funds available to carry it through. It
would certainly be less costly than building above ground, for the erection of a
mere utility warehouse in the immediate vicinity of the Bodleian would be an out-
rage upon the stately buildings which cluster there, to say nothing of the difficulty
of obtaining a site. How, then, is the money to be found? Government assistance
is hardly to be looked for. Some claim might undoubtedly be based upon the fact
that the Bodleian binds and houses a vast mass of Government publications, which
the authorities would not dream of buying, yet which must be preserved on the
chance that some day they will be called for by the specialist student. But good
though this claim may be, it is obvious that there are many other demands on the
treasury which ought to be satisfied first. The ideal solution, of course, would be to
discover a second Sir Thomas Bodley, or, failing him, a rich benefactor. * * *
The founding of public free libraries, whose principal function—at any rate, at
present—seems to be that of providing the homes of the lower middle classes with
a regular supply of inferior fiction, is the passion of the moment. One wishes these
no harm, but it is just a little incongruous that, while they are liberally provided
for, an institution like the Bodleian is left to struggle with adversity.

OXFORD UNIVERSITY EXTENSION LECTURES.

GENERAL SUMMARY OF THE AIMS AND METHODS OF UNIVERSITY EXTENSION TEACHING.

[From the Official Prospectus.]

The object of the university extension movement.—The university extension mo
ment seeks to bring the university to the people when the people can not com
the university. Its aim is to bring within the reach of every one the opportu
education, which widens the intelligence, enlarges the sympathies
men to employ their leisure better, and to enjoy it mor
obtain this higher education at the universities

or distributed to be answered by the students at home. These answers are sent by post to the lecturer, and, after having been read and corrected by him, are returned to the writers at the next week's class. During the class, students may obtain from the lecturer further oral criticism of their written exercises. They will also find additional direction in their studies by availing themselves of the system of reading circles.

The syllabus.—In their use of text-books the students are assisted by the printed syllabus, which gives an analysis of the lectures and provides lists of books recommended for private study.

The traveling libraries.—In connection with each course the delegates issue a traveling library, which contains copies of the principal text-books and authorities recommended by the lecturer. The library is returned to the delegates at the end of the course. Several courses are also illustrated by portfolios of engravings and autotypes, and many by the oxyhydrogen lantern.

Courses are classified in two departments, viz: (1) those consisting of ten lectures and upward, on which certificates are awarded, and (2) those of less than ten lectures on which no certificates are given. Certificates are awarded, under certain conditions, on two connected short courses delivered in successive sessions.

The examination.—At the conclusion of the course an examination is held by an examiner, other than the lecturer, appointed by the university.

In the examination those students who have not only attended the lectures but have thoroughly studied the subject of the course during its delivery in the books recommended by the lecturer have the opportunity of distinguishing themselves.

Certificates.—Entrance to the examination, which is in writing, is optional and open to all students over 15 years of age, who have attended not less than two-thirds of the classes following each lecture of the course, and have written for the lecturer answers to two-thirds of the questions set by him. According to the report of the examiner certificates of two grades or printed lists are awarded to the successful candidates, and a prize is given to the student whose work, if worthy of "distinction," is considered by the examiner to have shown the greatest merit. Prizes offered by local donors are awarded by the examiners on receipt of clear instructions as to the conditions on which they are offered.

The award of certificates of distinction depends on the joint recommendation of lecturer and examiner.

Terminal certificates are awarded only after courses of ten or twelve lectures; sessional certificates after a complete session's work. Examinations are permitted on shorter courses, but successful students receive, in place of a certificate, a copy of the examiner's award.

Affiliation and higher certificates of systematic study.—Centers undertaking to provide a suitable course of instruction extending over a period of years may apply for recognition as centers affiliated to the university. And in order further to encourage the connected and progressive study of a sequence of subjects, the delegates offer, under special conditions, affiliation certificates, or higher certificates of systematic study. Suitable certificates obtained by students on courses delivered under the supervision of the University of Cambridge, Victoria University, and the London University extension board are accepted as part of the qualification for these higher certificates. A further certificate, the vice-chancellor's certificate, is also awarded by the delegates.

Students' associations.—In a large number of centers students' associations have been formed to supplement the work done in the lecture room. These associations meet periodically under the guidance of a president or leader. Information as to the methods pursued, together with model rules, can be obtained on application.

Reading circles for the guidance of home study.—The delegates have also arranged means by which students may obtain on economical terms private tuition by correspondence in history, literature, political economy, and some departments of natu-

There will also be a class in middle English by Dr. Henry Sweet, [illegible] netics, and (if sufficient applications are received) a class for advanced students in the study of Dante by Mr. Wicksteed. The latter will be strictly limited in numbers.

Section 3. Natural science.—This section will be designed to illustrate the relations of science to industry and will be organized in three subsections dealing respectively with (*a*) chemistry; (*b*) electricity; (*c*) bacteriology.

Among the lecturers will be: Prof. Sims Woodhead, M. D., F. R. S. E., professor of pathology in the University of Cambridge; Prof. Raphael Meldola, F. R. S., professor of chemistry in Finsbury Technical College; Professor Warington, F. R. S., late professor of rural economy at Oxford; Dr. C. W. Kimmins, chief inspector to the technical education board of the L. C. C.; Dr. Ritchie, reader in pathology in the University of Oxford; Mr. A. F. Walden, M. A., lecturer of New College. (This section is far from complete.) There will also be a conference on the relations of science and industry. Chairman, Sir Philip Magnus.

Section 4. Social economics.—This section will deal mainly with economic questions of contemporary interest, such as free trade and protection; zollvereins and preferential tariffs; taxation, imperial and local; municipal trading; trusts and combinations.

Among the lecturers will be: Hon. W. P. Reeves, agent general for New Zealand; Sir Vincent Caillard; Prof. W. J. Ashley, M. A., professor of commerce in the University of Birmingham; Prof. W. A. S. Hewins, M. A., director of the London School of Economics; Mr. M. E. Sadler, M. A.; Mr. J. H. Morgan, B. A., and others.

Section 5. Early renaissance art and the architecture of the period.—Among the lecturers will be: Mr. Walter Ford, M. A., King's College, Cambridge (mediæval folk song); Dr. Vaughan Williams; Mr. F. Bond, M. A., F. R. I. B. A.; Mr. Basil de Sélincourt, B. A., New College; and Mr. E. F. Caritt, M. A., fellow and lecturer of University College.

Special architectural visits and demonstrations will be arranged in connection with this section.

Special classes.—There will be special classes (for which a small extra charge will be made, and which will be limited in numbers) in:

(1) The history, theory, and practice of education; (2) middle English—lecturer, Dr. Henry Sweet; (3) Dante—lecturer, Mr. Wicksteed; (4) the Greek language, and (5) Italian language, if the demand justify their arrangement.

Special sermons will be preached in the Church of St. Mary-the-Virgin (University Church) by the Right Rev. the Lord Bishop of Oxford, the Right Rev. the Lord Bishop of Ripon, the Very Rev. the dean of Christ Church, the Rev. Augustus Jessopp, D. D., Hon. Fellow of Worcester College, the Rev. D. H. S. Cranage, M. A., secretary to the Cambridge syndicate for local lecturers, and others.

Theological lectures will be given by the Rev. C. Bigg, D. D., canon of Christ Church and regius professor of ecclesiastical history; the Rev. W. H. Hutton, B. D., fellow and tutor of St. John's College and Bampton lecturer (1903); and Miss Elizabeth Wordsworth, principal of Lady Margaret Hall (on Bible lessons in schools).

Conferences have been arranged on: (1) The education act of 1902 and university extension; chairman, Sir William R. Anson, D. C. L., M. P., warden of All Souls College, and parliamentary secretary to the Board of education. (2) Free libraries and higher popular education; chairman, the Right Hon. Viscount Goschen, D. C. L., F. R. S. (3) Science in its relation to industry; chairman, Sir Philip Magnus, technical education board of the L. C. C.

Conversaziones, etc.—There will be a conversazione, a garden party, and on August [illegible] be arranged to places of historical and architectural interest in

[illegible] room and reading rooms with a refer-

to secondary education: (1) Commissions appointed to inquire into the state of endowed secondary schools; (2) examining agencies; (3) movement for promoting science and technical art instruction. State of secondary education in Scotland and Ireland. Statistics of secondary education, Great Britain and Ireland. Typical schools and programs. Higher Education in Great Britain and Ireland, statistics 1889–1901; current university notes.

PART I.

Summary of current educational statistics, Great Britain and Ireland.

Sources of information.	Institutions.	Date of report.	Registered students or pupils.	Professors or teachers.	Expenditure.
	Great Britain.				
	ENGLAND AND WALES.				
Statesman's Yearbook, 1902.	Universities: [a]				
	Oxford (23 colleges)	1901	[b] 3,481	.....	.....
	Cambridge (18 colleges)	1901	[b] 2,958	.....	.....
	Durham (3 colleges)	1901	[c] 590	92	.....
	London	1901	[d] 6,889	813	.....
	Victoria (3 colleges)	1901	2,404	296	.....
	Birmingham	1901	677	82	.....
	University of Wales (3 colleges)	1901	1,428	132	.....
	Detached colleges (4)	1901	4,131	184	.....
	University colleges for women (4)	1901	417	.....	.....
Official report, 1901–2.	Elementary day schools	1902	5,881,278	153,492	$65,025,810
	Night schools	1901	546,405	.....	.....
	Training colleges for elementary teachers.	1902	6,077	.....	.....
	SCOTLAND.				
Statesman's Yearbook, 1902.	Universities:				
	Aberdeen (1 college)	1901	755	54	.....
	Edinburgh (1 college)	1901	2,929	109	.....
	Glasgow (1 college)	1901	2,013	104	.....
	St. Andrews (3 colleges)	1901	419	75	.....
	Glasgow Technical College	1901	[e] 298	74	.....
Official report, 1901–2.	Elementary day schools	1901	767,421	17,909	9,063,215
	High grade schools	1901	3,270	.....	.....
	Night schools	1901	87,599	.....	.....
	Training colleges for elementary teachers.	1901	1,492	.....	.....
	Ireland.				
Statesman's Yearbook, 1902.	Universities:				
	Dublin	1901	976	75	.....
	Belfast, Queen's College	1901	359	26	.....
	Cork, Queen's College	1901	171	23	.....
	Galway, Queen's College	1901	97	23	.....
	University College, Dublin	1901	184	19	.....
Official report, 1901.	Elementary day schools	1901	[f] 754,028	12,798	6,071,740
	Night schools	1901	18,954	.....	.....
	Training schools for elementary teachers.	1901	980	.....	.....
	Great Britain and Ireland.				
Official report, 1901–1902.	Science schools and classes	1901	174,692	.....	[g] 2,496,165
	Art schools and classes	1901	125,597	.....	

[a] Owens College, Manchester, University College, Liverpool, and Yorkshire College, Leeds, are associated together as the Victoria University; and the Welsh colleges at Aberystwith, Bangor, and Cardiff, as the University of Wales; Mason College is incorporated with Birmingham University.
[b] Undergraduates.
[c] The three colleges include the academic college at Durham, college of medicine and college of science, Newcastle. The number of students in medicine is not reported.
[d] Also 4,942 evening students. For account of the reorganized University of London, see p. 1064.
[e] Also 3,781 evening students.
[f] Average enrollment.
[g] Grants by Board of Education.

If capital expenditure be included, as in Table VI, the increase in annual expenditure appears still more impressive. In 1871 it reached a total of £2,496,192 ($12,480,960), and in 1895 (the last year for which the entire report is available) a total of £14,605,525 ($73,027,625), or nearly six times the earlier expenditure. Comparison here can not be made between board and voluntary schools, excepting with reference to the capital expenditure (Table VI, columns *f* and *g*). It is important also to observe that the local taxes (for board schools only) increased from £71,184 in 1871 to £3,987,790 in 1895, or more than fifty times the earlier amount. Since 1895 the receipts from this source have increased still further (by 60 per cent; see column *a*). This increase in local taxes is even more significant than the increase in the Government appropriations which are applicable to both board and voluntary schools.

From the Government grant the school boards derived £3,878,789 in 1902, as against £6,331,811 from local taxes applicable to both current and capital expenditure. (Compare Table IX, B, line 5, with Table VI, column *a*.)

In comparison with this vast increase in local appropriations the increase of subscriptions and income from endowments in the case of voluntary schools (Table VI, columns *b* and *g*) is meager and explains the "intolerable strain" of which those schools complained and which led in 1897 to the creation of a special aid grant in their behalf.

The increase in the local school taxes is a striking proof of the local interest and support which the school boards have evoked, and in this light it appears the most important outcome of the law of 1870. The strength of this local spirit, which is most active in the great cities, was manifested in a striking manner throughout the recent debate in Parliament over the new education law to be presently considered.

STATISTICS OF ELEMENTARY SCHOOLS OF ENGLAND, CURRENT AND RETROSPECTIVE.[a]

Table I shows the comparative growth of board and "voluntary" schools, the latter chiefly denominational, as indicated by average attendance for successive years from 1870 to 1902, inclusive. Table II shows the accommodation and enrollment in the different classes of schools for the year 1901 and brings the totals in comparison with those for the successive years 1899–1901.

TABLE I.—*Number of children in average attendance in public elementary day schools, board and voluntary, inspected during the year.*

Year ending Aug. 31—	Board.	Voluntary.	Board.	Year ending Aug. 31—	Board.	Voluntary.	Board.
			Per cent.				*Per cent.*
1870	.....	1,152,389	0.0	1887	1,315,461	2,211,920	37.3
1871	.....	1,231,434	.0	1888	1,378,006	2,236,961	38.1
1872	8,726	1,327,432	.7	1889	1,424,835	2,257,790	38.7
1873	69,983	1,412,497	4.7	1890	1,457,358	2,260,559	39.2
1874	138,293	1,540,466	8.2	1891	1,491,571	2,258,385	39.8
1875	227,285	1,609,895	12.4	1892	1,570,397	2,300,377	40.6
1876	328,071	1,656,502	16.5	1893	1,688,668	2,411,362	41.2
1877	427,583	1,723,150	19.9	1894	1,777,797	2,448,037	42.1
1878	559,078	1,846,119	23.2	1895	1,879,218	2,445,812	43.4
1879	669,741	1,925,254	25.8	1896	1,956,992	2,465,919	44.2
1880	769,252	1,981,664	28	1897	2,016,547	2,471,996	44.9
1881	856,351	2,007,184	29.9	1898	2,072,911	2,481,254	45.5
1882	945,231	2,069,920	31.3	1899	2,137,805	2,499,133	46.1
1883	1,028,904	2,098,310	32.9	1900	2,177,253	2,488,877	47
1884	1,115,832	2,157,292	34.1	1901	2,239,375	2,492,586	47.3
1885	1,187,455	2,183,870	35.2	1902	2,344,020	2,546,217	47.9
1886	1,251,307	2,187,118	36.4				

[a] Annual reports of the committee of council on education, 1870 to 1898–99, inclusive; report of the Duke of Newcastle's commission, 1861; report of the royal commission on the elementary education acts, 1888; special reports on educational subjects, education department, 1896–97; reports of the board of education, 1899–1900, 1900–1901, 1901–2. The retrospective tables are derived chiefly from the last-named source and the final report of the committee of council on education (1898–99).

TABLE VI.—*Expenditure on public elementary education (England and Wales), 1871–1895 (current and capital)*—Continued.

PROPORTION OF TOTAL EXPENDITURE WHICH FELL (*a*) ON THE CENTRAL FUNDS OF THE STATE, (*b*) ON OTHER SOURCES OF REVENUE.

Year.	State.	Other sources of income.	Year.	State.	Other sources of income.	Year.	State.	Other sources of income.
1871	37.16	62.84	1886	35.08	64.92	1893	50.54	49.46
1876	25.89	74.11	1891	36.41	63.59	1894	48.44	51.56
1881	31.93	68.07	1892	46.00	54.00	1895	47.68	52.32

TABLE VII.—*Average expenditure (on maintenance only) per scholar in average attendance.*

Year ending August 31.	Board schools.			Voluntary schools.			Year ending August 31.	Board schools.			Voluntary schools.		
	£	s.	d.	£	s.	d.		£	s.	d.	£	s.	d.
1870	.....			1	5	5	1887	2	4	7½	1	16	4½
1871	.....			1	5	6½	1888	2	4	7½	1	16	4
1872	1	8	4½	1	7	5	1889	2	4	6½	1	16	4½
1873	1	14	5½	1	9	11½	1890	2	5	11½	1	16	11½
1874	1	15	4½	1	10	10½	1891	2	7	1½	1	17	8
1875	1	16	11	1	11	10½	1892	2	8	4½	1	17	9½
1876	2	1	4½	1	13	5½	1893	2	8	1½	1	17	6½
1877	2	1	4½	1	13	9	1894	2	8	9½	1	18	1½
1878	2	1	9½	1	14	0	1895	2	10	1½	1	18	11½
1879	2	2	0½	1	14	6	1896	2	11	11½	1	19	6½
1880	2	1	11½	1	14	7½	1897	2	13	2½	2	0	6
1881	2	1	6	1	14	11½	1898	2	13	9½	2	2	4½
1882	2	1	6½	1	14	6½	1899	2	15	7	2	5	1½
1883	2	1	3½	1	14	10½	1900	2	17	8	2	6	5
1884	2	1	8½	1	15	2	1901	3	0	2	2	6	8½
1885	2	5	4	1	15	9½	1902	3	0	9	2	6	4
1886	2	4	11½	1	16	4½							

TABLE VIII.—*Comparative view of income for maintenance only, day and evening schools, 1894–1900; day schools only, 1902.*

Classification of sources.	Total local sources.			Total Government grants.		
	1894.	1900.	1902.	1894.	1900.	1902.
National Society, or Church of England	£958,485	£937,609	£962,206	£2,613,956	£3,407,479	£3,409,945
Wesleyan	59,488	53,897	55,857	191,647	233,450	233,628
Roman Catholic	96,994	93,835	99,385	309,903	462,492	464,163
British and other schools	153,891	169,710	153,023	355,603	427,701	394,967
Board schools	1,826,071	3,078,954	3,558,143	2,612,140	3,474,799	3,558,495
Total	3,094,929	4,334,009	4,828,613	6,083,249	8,002,978	8,061,218

TABLE X.—*Number of teachers in public elementary day schools.*

	Year ending August 31—							
	1870.	1875.	1880.	1885.	1890.	1895.	1899.	1900.
Certificated teachers:								
Men—								
Trained	.....	7,548	9,546	11,287	12,770	15,023	17,436	17,651
Untrained	.....	2,284	3,975	5,026	5,934	6,200	6,817	6,906
Total	6,395	9,832	13,521	16,313	18,704	21,223	24,253	24,557
Women—								
Trained	.....	7,324	9,347	11,371	12,873	15,616	18,584	19,317
Untrained	.....	3,787	8,554	13,022	14,962	16,102	19,248	20,164
Total	6,072	11,111	17,901	24,393	27,835	31,718	37,832	39,481
Assistant teachers:								
Men	487	984	2,681	5,104	5,254	5,047	4,725	5,121
Women	775	1,729	4,971	11,514	16,530	22,914	25,508	27,315
Pupil teachers (including probationers): [a]								
Boys	6,384	10,842	10,822	7,625	7,095	7,246	6,643	6,035
Girls	8,228	18,403	21,306	20,113	23,467	26,757	26,706	24,956
Additional teachers, women	.....	.....	2,352	4,292	5,210	11,678	16,717	17,512
Total men	13,266	21,656	27,024	29,042	31,653	33,516	35,621	35,713
Total women [b]	15,775	31,243	46,530	60,312	73,042	93,067	106,763	109,266
Total	29,041	52,899	73,554	89,354	104,695	126,583	142,384	144,979
Per cent of men	45.68	41	36.74	32.5	30.23	26.46	25.01	24.7

[a] Year ending December 31 for years 1870, 1875, and 1880.
[b] Including pupil teachers and probationers; the latter, numbering 2,656 in 1899, are not included in number of teachers given in Tables I and XIV.

TABLE XI.—*Proportion of each class of teachers to the total number.*

Year.	Certificated teachers.	Assistant teachers.	Pupil teachers, including probationers.	Total.[a]	Percentage of total teachers.[a]		
					Certificated.	Assistant.	Pupil.
1870	12,467	1,262	14,612	28,341	44.0	4.4	51.6
1875	20,940	2,713	29,245	52,898	39.6	5.1	55.3
1880	31,442	7,652	32,128	71,202	44.1	10.8	45.1
1885	40,706	16,618	27,738	85,062	47.9	19.5	32.6
1890	46,539	21,784	31,162	99,485	46.8	21.9	31.3
1895	52,941	27,961	34,003	115,905	46.1	24.3	29.6
1899	62,085	30,233	33,349	125,667	49.4	24.1	26.5
1900	64,058	32,436	30,991	127,485	50.24	27.3	23.5
1901	66,149	34,716	28,002	128,867	51.3	26.9	21.8

[a] Not including additional women teachers first employed in 1880 (numbering 17,956 in 1901).

TABLE XII.—*Average annual salaries of certificated teachers.*

Year.	Masters.					Mistresses.				
	Average salary of—			Percentage in receipt of salaries over £300.		Average salary of—			Percentage in receipt of salaries over £200.	
	Principal teachers.	Assistant teachers.	All teachers.	Principal.	All teachers.	Principal teachers.	Assistant teachers.	All teachers.	Principal.	All teachers.
1870	.....	.....	£94	.....	.....	.....	.....	£57	.....	.....
1875	.....	.....	109	.....	.....	.....	.....	65	.....	.....
1880	.....	.....	121	.....	1.05	.....	.....	73	.....	0.51
1885	£132	£90	121	2.11	1.56	£79	£63	74	2.05	1.34
1890	134	90	120	2.95	2.01	83	66	76	2.75	1.68
1895	138	98	122	3.21	1.97	88	73	81	3.51	1.93
1899	144	102	125	3.54	1.97	94	76	84	3.95	1.85
1900	145.7	.....	.....	3.6	1.9	95.7	.....	.....	4.1	1.9
1901	147.5	.....	128.8	3.8	.....	97.1	.....	86.5	4.2	.....

TABLE XIV.—*Comparison of the eleven years 1890–1900 and 1902 with 1870 and 1876*—Continued.

	Year ending August 31—			
	1893.	1894.	1895.	1896.
Schools (institutions) inspected by Her Majesty's inspectors	19,577	19,709	19,739	19,848
Voluntary schools	14,673	14,628	14,479	14,416
Board schools	4,904	5,081	5,260	5,432
Departments under separate head teachers in those schools	29,804	30,033	30,237	30,521
Scholars for whom accommodation is provided	5,762,617	5,832,944	5,937,288	6,072,374
Percentage to estimated population	19.38	19.44	19.53	19.71
Scholars on the school registers	5,126,373	5,198,741	5,299,469	5,422,989
Percentage to estimated population	17.24	17.29	17.43	17.60
Scholars in actual average attendance[a]	4,100,080	4,225,834	4,325,030	4,422,911
Percentage to estimated population	13.79	14.06	14.23	14.35
Percentage to scholars on the school registers	79.98	81.29	81.61	81.55
Average attendance for payment in infant schools and classes	1,276,302	1,318,478	1,333,680	1,370,392
Average attendance for payment in schools for older scholars	2,846,549	2,926,629	3,008,798	3,070,550
Average attendance of scholars who earned grants upon examination in class subjects	2,752,261	2,884,196	2,980,948	3,052,692
Scholars qualified for grant in specific subjects	100,120	113,384	128,012	138,814
Number of departments in which singing was taught:				
By ear	9,655	8,690	7,892	7,204
By notes	20,106	21,300	22,302	23,280
Number of schools in which were taught—				
Military drill	1,346	1,343	1,572	1,903
Manual instruction	430	677	949	1,178
Science	557	573	632	783
Physical exercises	1,938	2,259	3,185	5,333
Half-time scholars	164,018	140,831	126,896	119,747
School libraries	5,832	6,225	6,381	6,550
Savings banks	8,548	8,668	8,410	8,065
Certificated and provisionally certificated teachers[b]	49,340	50,689	52,941	56,712
Assistant teachers	25,123	26,067	27,961	25,393
Additional teachers	8,534	10,196	11,678	12,838
Pupil teachers	27,288	28,739	31,476	33,529
"Annual grant"	£3,783,237	£3,926,641	£4,081,281	£4,217,506

	Year ending August 31—				
	1897.	1898.	1899.	1900.	1902.
Schools (institutions) inspected by Her Majesty's inspectors	19,958	19,937	20,064	20,100	20,158
Voluntary schools	14,434	14,382	14,432	14,409	14,275
Board schools	5,524	5,555	5,632	5,691	5,878
Departments under separate head teachers in those schools	30,847	30,911	31,173	31,234	31,372
Scholars for whom accommodation is provided	6,215,199	6,316,866	6,417,514	6,509,611	6,681,295
Percentage to estimated population	20.01	20.11	20.21	20.28	20.54
Scholars on the school registers	5,507,039	5,576,866	5,654,092	5,686,114	5,881,278
Percentage to estimated population	17.73	17.76	17.81	17.71	18.08
Scholars in actual average attendance[a]	4,488,543	4,554,165	4,636,938	4,666,130	4,788,400
Percentage to estimated population	14.45	14.50	14.60	14.53	14.72
Percentage to scholars on the school registers	81.50	81.66	82.01	82.06	81.41
Average attendance for payment in infant schools and classes	1,391,091	1,428,321	1,476,309	1,478,211	1,486,023
Average attendance for payment in schools for older scholars	3,117,469	3,148,851	3,195,671	3,230,236	3,302,377
Average attendance of scholars who earned grants upon examination in class subjects	3,107,051	3,143,618	3,192,794	3,227,985	.....
Scholars qualified for grant in specific subjects	156,314	175,689	346,301	330,815	.....
Number of departments in which singing was taught:					
By ear	6,536	5,899	5,250	4,577	2,290
By notes	24,284	24,991	25,901	26,638	29,077

[a] In Table II will be found separately the average attendance in board and voluntary schools.
[b] Men teachers and women teachers are given separately in Table XIII.

other denominations (in particular the Wesleyan Methodists and Roman Catholics; see Table II), stimulated by the prospect of public aid, entered into the work. In 1839 the Government appropriation was increased to £30,000 ($150,000), and the same year a committee of council was created to superintend the disbursement of the education grant. This committee at once decided to require the right of inspecting the schools aided; so that, at the time of the passage of the education law of 1870, there was in existence a system of denominational schools aided and inspected by the Government, and under the general supervision of a Government department. But this system, though sustained by the zeal of the church and fostered by the Government, failed to stem the ever rising tide of illiteracy. In his speech before the House of Commons in 1870 in support of his bill, Mr. Forster stated that "not more than two-fifths of the children of the working classes between the ages of 6 and 10" were on the "registers of Government schools, and only one-third of those between 10 and 12." It was estimated that in Liverpool, with 80,000 children between the ages of 5 and 13, there were 20,000 children who attended no school and 20,000 more in schools not worth the name. In Manchester 16,000 children out of 65,000 were destitute of school accommodation.[a] The conscience of the English people and the instinct of self-preservation were aroused at these disclosures, and for the time differences of opinion were sunk in view of the common danger.

The spirit which was making for civic control in many departments of public affairs asserted itself in this, and the duty of making up the educational deficiency of the nation was intrusted to school boards to be elected for the purpose. While it was evident that these boards were not intended to supplant the denominational agencies, it was equally evident that they were regarded as the hope of the future. The law carefully provided for their election, the whole country being organized in school districts for this purpose.[b] Each district was authorized to elect a school board for the maintenance of public elementary schools in such number as the circumstances might require. In case a district failed of its own motion to elect a school board the Government would order the election upon proof that adequate provision of efficient elementary schools did not exist therein. The sincerity of the purpose thus expressed is shown by the fact that up to 1900 the election of school boards had been ordered in 57 municipal districts and in 1,298 towns and rural parishes. (Table III, p. 1005.) The school boards were authorized to borrow money on the security of local taxes for the purchase of sites and the erection of schoolhouses, and to levy taxes to meet such part of the current expenses of the schools as were not provided by the Government grant. The denominational schools were to receive the Government grant on the same terms as the board schools, but were not allowed any share in the local taxes, the excess of their expenditure above the Government grant being met by endowments and subscriptions. By reason of their more stable finances and freedom from traditional restrictions, the board schools have made almost phenomenal development, and have even invaded the province of secondary education by their upward extension. The disparity between the two classes of schools has been emphasized by differences in location, the board schools being chiefly city schools and the church schools most numerous in rural districts. The obvious evils of this inequality have been aggravated by the very natural antagonism of the church to the extension of civil control in a province so long exclusively its own. With the return of the conservative party to power in 1895, this antagonism reached an acute stage, and the educational problem assumed from that time the aspect of a partisan conflict. The new law should therefore be viewed in a

[a] Forster's speech in support of the education bill of 1870.

[b] The school districts were the metropolis, all municipal boroughs except Oxford, the district of the local board of Oxford, and all civil parishes not included in these. It should be noticed that there are three classes of parishes in England: Civil parishes (about 14,900), ecclesiastical parishes (13,000), and highway parishes (14,700).

Although under the new law the councils (county and city) have become the local authorities in charge of education, they are not directly responsible for the creation and maintenance of schools. These functions will be discharged through education committees appointed under schemes which must be approved by the education department. (Part IV, clause 17.)

We need not here dwell upon the constitution and powers of these committees, excepting with reference to the single provision that women must be appointed upon them. This provision is a significant admission of the great service women have rendered as members of the school boards, although it fails to give them a place in the really authoritative bodies, i. e., the councils, which was urged by progressive men and women all over the country. At a public meeting held in Manchester to excite action in this matter the Dean of Manchester said:

> We think that women ought to be eligible for appointment (whether by a public authority or by cooptation) upon both sets of authorities (county and borough), and that it is indeed desirable to provide that a certain number shall be women, as experience seems to have shown that the interests of girls often receive insufficient attention, and that there is also a risk that women may not be chosen unless some special provision for their presence is made.[a]

In a similar meeting held in London the same view was earnestly supported by Sir Joshua Fitch and Mr. Bryce.

The direct control of elementary schools will be in the hands of managers appointed in accordance with the provisions of clause 6 (Part III). The former board schools will henceforth be known as public elementary schools provided by the local education authority (or, briefly, "provided" schools). If city schools, they will be in the charge of the city councils, or of managers appointed by those councils, and if rural schools, they will be in the charge of managers appointed by the county council and the minor local authority.

The "voluntary" schools (i. e., church schools) will hereafter be known as "nonprovided schools." They will be in the charge of a body of managers of whom four out of every six will be appointed under the terms of the trust deeds of the respective institutions, and two out of every six appointed by the local authority. The combination of local authorities, education committees, and school managers seems to have complicated rather than to have simplified school administration. Such was the view taken by Mr. Bryce, whose analysis of the administrative provisions of the new law is cited among the appended papers. From another point of view, as will be seen by an article cited from the London Times, the law, in spite o these complications, appears to be an advance toward a unified national system.

The slight concession of two managers appointed by the local authority out of ever six managers in charge of a denominational school was brought about by omino signs of discontent, even within the conservative ranks, at the bold proposal that t Government should assume the entire support of church schools without imposi upon them any degree of public control. The importance of this slight concess was emphasized by the subsequent adoption of the now famous Kenyon-Sla amendment with respect to the control of religious instruction in "nonprovid schools. The amendment reads as follows:

> Religious instruction given in a public elementary school not provided by local authority shall, as regards its character, be in accordance with the provi (if any) of the trust deed relating thereto, and shall be under the control o managers. (Clause 7, p. 4.)

The full bearing of this amendment, which is discussed in an appended seems not to have been grasped by either party till the bill had become law.

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[a] Manchester Guardian, March 15, 1902.

AN ACT to make further provision with respect to education in England and Wales.

[18th DECEMBER, 1902.]

Be it enacted by the King's most Excellent Majesty, by and with the advice and consent of the lord's spiritual and temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

PART I.—*Local education authority.*

1. For the purposes of this act the council of every county and of every county borough shall be the local education authority:

Provided, That the council of a borough with a population of over ten thousand, or of an urban district with a population of over twenty thousand, shall, as respects that borough or district, be the local education authority for the purpose of Part III of this act, and for that purpose as respects that borough or district, the expression "local education authority" means the council of that borough or district.

PART II.—*Higher education.*

Power to aid higher education.

2. (1) The local education authority shall consider the educational needs of their area and take such steps as seem to them desirable, after consultation with the board of education, to supply or aid the supply of education other than elementary, and to promote the general coordination of all forms of education, and for that purpose shall apply all or so much as they deem necessary of the residue under section one of the local taxation (customs and excise) act, 1890, and shall carry forward for the like purpose any balance thereof which may remain unexpended, and may spend such further sums as they think fit: *Provided*, That the amount raised by the council of a county for the purpose in any year out of rates under this act shall not exceed the amount which would be produced by a rate of two pence in the pound, or such higher rate as the county council, with the consent of the local government board, may fix.

(2) A council in exercising their powers under this part of this act shall have regard to any existing supply of efficient schools or colleges, and to any steps already taken for the purposes of higher education under the technical instruction acts, 1889 and 1891.

Concurrent powers of smaller boroughs and urban districts.

3. The council of any noncounty borough or urban district shall have power as well as the county council to spend such sums as they think fit for the purpose of supplying or aiding the supply of education other than elementary: *Provided*, That the amount raised by the council of a noncounty borough or urban district for the purpose in any year out of rates under this act shall not exceed the amount which would be produced by a rate of one penny in the pound.

Religious instruction.

4. (1) A council in the application of money under this part of this act shall not require that any particular form of religious instruction or worship or any religious catechism or formulary which is distinctive of any particular denomination shall or shall not be taught, used, or practiced in any school, college, or hostel aided but not provided by the council, and no pupil shall, on the ground of religious belief, be excluded from or placed in an inferior position in any school, college, or hostel provided by the council, and no catechism or formulary distinctive of any particular religious denomination shall be taught in any school, college, or hostel so provided, except in cases where the council, at the request of parents of scholars, at such times and under such conditions as the council think desirable, allow any religious instruction to be given in the school, college, or hostel otherwise than at the cost of the council: *Provided*, That in the exercise of this power no unfair preference shall be shown to any religious denomination.

(2) In a school or college receiving a grant from or maintained by a council under this part of this act,

(*a*) A scholar attending as a day or evening scholar shall not be required as a condition of being admitted into or remaining in the school or college to attend or abstain from attending any Sunday school, place of religious worship, religious observance, or instruction in religious subjects in the school or college or elsewhere; and

(*b*) The times for religious worship or for any lesson on a religious subject shall be conveniently arranged for the purpose of allowing the withdrawal of any such scholar therefrom.

PART III.—*Elementary education.*

Powers and duties as to elementary education.

5. The local education authority shall throughout their area have the powers and duties of a school board and school attendance committee under the elementary education acts, 1870 to 1900, and any other acts, including local acts, and shall also

be responsible for and have the control of all secular instruction in public elementary schools not provided by them, and school boards and school attendance committees shall be abolished.

Management of schools.

6. (1) All public elementary schools provided by the local education authority shall, where the local education authority are the council of a county, have a body of managers consisting of a number of managers not exceeding four, appointed by that council, together with a number not exceeding two appointed by the minor local authority.

Where the local education authority are the council of a borough or urban district they may, if they think fit, appoint for any school provided by them a body of managers consisting of such number of managers as they may determine.

(2) All public elementary schools not provided by the local education authority shall, in place of the existing managers, have a body of managers consisting of a number of foundation managers not exceeding four, appointed as provided by this act, together with a number of managers not exceeding two appointed—

(a) Where the local education authority are the council of a county, one by that council and one by the minor local authority; and

(b) Where the local education authority are the council of a borough or urban district, both by that authority.

(3) Notwithstanding anything in this section—

(a) Schools may be grouped under one body of managers in manner provided by this act; and

(b) Where the local education authority consider that the circumstances of any school require a larger body of managers than that provided under this section, that authority may increase the total number of managers, so, however, that the number of each class of managers is proportionately increased.

Maintenance of schools.

7. (1) The local education authority shall maintain and keep efficient all public elementary schools within their area which are necessary, and have the control of all expenditure required for that purpose, other than expenditure for which, under this act, provision is to be made by the managers; but, in the case of a school not provided by them, only so long as the following conditions and provisions are complied with:

(a) The managers of the school shall carry out any directions of the local education authority as to the secular instruction to be given in the school, including any directions with respect to the number and educational qualifications of the teachers to be employed for such instruction, and for the dismissal of any teacher on educational grounds, and if the managers fail to carry out any such direction the local education authority shall, in addition to their other powers, have the power themselves to carry out the direction in question as if they were the managers; but no direction given under this provision shall be such as to interfere with reasonable facilities for religious instruction during school hours;

(b) The local education authority shall have power to inspect the school;

(c) The consent of the local education authority shall be required to the appointment of teachers, but that consent shall not be withheld except on educational grounds; and the consent of the authority shall also be required to the dismissal of a teacher unless the dismissal be on grounds connected with the giving of religious instruction in the school;

(d) The managers of the school shall provide the schoolhouse free of any charge, except for the teacher's dwelling house (if any), to the local education authority for use as a public elementary school, and shall, out of funds provided by them, keep the schoolhouse in good repair, and make such alterations and improvements in the buildings as may be reasonably required by the local education authority: *Provided*, That such damage as the local authority consider to be due to fair wear and tear in the use of any room in the schoolhouse for the purpose of a public elementary school shall be made good by the local education authority.

(e) The managers of the school shall, if the local education authority have no suitable accommodation in schools provided by them, allow that authority to use any room in the schoolhouse out of school hours free of charge for any educational purpose, but this obligation shall not extend to more than three days in the week.

(2) The managers of a school maintained but not provided by the local education authority, in respect of the use by them of the school furniture out of school hours, and the local education authority in respect of the use by them of any room in the schoolhouse out of school hours, shall be liable to make good any damage caused to the furniture or the room, as the case may be, by reason of that use (other than damage arising from fair wear and tear), and the managers shall take care that, after the use of a room in the schoolhouse by them, the room is left in a proper condition for school purposes.

(3) If any question arises under this section between the local education authority and the managers of a school not provided by the authority, that question shall be determined by the board of education.

(4) One of the conditions required to be fulfilled by an elementary school in order to obtain a parliamentary grant shall be that it is maintained under and complies with the provisions of this section.

(5) In public elementary schools maintained but not provided by the local education authority, assistant teachers and pupil teachers may be appointed, if it is thought fit, without reference to religious creed and denomination, and, in any case in which there are more candidates for the post of pupil teacher than there are places to be filled, the appointment shall be made by the local education authority, and they shall determine the respective qualifications of the candidates by examination or otherwise.

(6) Religious instruction given in a public elementary school not provided by the local education authority shall, as regards its character, be in accordance with the provisions (if any) of the trust deed relating thereto, and shall be under the control of the managers: *Provided*, That nothing in this subsection shall affect any provision in a trust deed for reference to the bishop or superior ecclesiastical or other denominational authority, so far as such provision gives to the bishop or authority the power of deciding whether the character of the religious instruction is or is not in accordance with the provisions of the trust deed.

(7) The managers of a school maintained but not provided by the local education authority shall have all powers of management required for the purpose of carrying out this act, and shall (subject to the powers of the local education authority under this section) have the exclusive power of appointing and dismissing teachers.

Provision of new schools.

8. (1) Where the local education authority or any other persons propose to provide a new public elementary school, they shall give public notice of their intention to do so, and the managers of any existing school, or the local education authority (where they are not themselves the persons proposing to provide the school), or any ten ratepayers in the area for which it is proposed to provide the school, may, within three months after the notice is given, appeal to the board of education on the ground that the proposed school is not required, or that a school provided by the local education authority, or not so provided, as the case may be, is better suited to meet the wants of the district than the school proposed to be provided; and any school built in contravention of the decision of the board of education on such appeal shall be treated as unnecessary.

(2) If, in the opinion of the board of education, any enlargement of a public elementary school is such as to amount to the provision of a new school, that enlargement shall be so treated for the purposes of this section.

(3) Any transfer of a public elementary school to or from a local education authority shall for the purposes of this section be treated as the provision of a new school.

Necessity of schools.

9. The board of education shall, without unnecessary delay, determine, in case of dispute, whether a school is necessary or not, and, in so determining, and also in deciding on any appeal as to the provision of a new school, shall have regard to the interest of secular instruction, to the wishes of parents as to the education of their children, and to the economy of the rates; but a school for the time being recognized as a public elementary school shall not be considered unnecessary in which the number of scholars in average attendance, as computed by the board of education, is not less than thirty.

Aid grant.

10. (1) In lieu of the grants under the voluntary schools act, 1897, and under section ninety-seven of the elementary education act, 1870, as amended by the elementary education act, 1897, there shall be annually paid to every local education authority, out of moneys provided by Parliament—

(*a*) A sum equal to four shillings per scholar; and

(*b*) An additional sum of three halfpence per scholar for every complete twopence per scholar by which the amount which would be produced by a penny rate on the area of the authority falls short of ten shillings a scholar: *Provided*, That, in estimating the produce of a penny rate in the area of a local education authority not being a county borough, the rate shall be calculated upon the county rate basis, which, in cases where part only of a parish is situated in the area of the local education authority, shall be apportioned in such manner as the board of education think just.

But if in any year the total amount of parliamentary grants payable to a local education authority would make the amount payable out of other sources by that authority on account of their expenses under this part of this act less than the amount which would be produced by a rate of threepence in the pound, the parlia-

mentary grants shall be decreased, and the amount payable out of other sources shall be increased by a sum equal in each case to half the difference.

(2) For the purposes of this section the number of scholars shall be taken to be the number of scholars in average attendance, as computed by the board of education, in public elementary schools maintained by the authority.

Found managers

11. (1) The foundation managers of a school shall be managers appointed under the provisions of the trust deed of the school, but if it if is shown to the satisfaction of the board of education that the provisions of the trust deed as to the appointment of managers are in any respect inconsistent with the provisions of this act, or insufficient or inapplicable for the purpose, or that there is no such trust deed available, the board of education shall make an order under this section for the purpose of meeting the case.

(2) Any such order may be made on the application of the existing owners, trustees, or managers of the school, made within a period of three months after the passing of this act, and after that period on the application of the local education authority or any other person interested in the management of the school, and any such order, where it modifies the trust deed, shall have effect as part of the trust deed, and where there is no trust deed shall have effect as if it were contained in a trust deed.

(3) Notice of any such application, together with a copy of the draft final order proposed to be made thereon, shall be given by the board of education to the local education authority and the existing owners, trustees, and managers, and any other persons who appear to the board of education to be interested, and the final order shall not be made until six weeks after notice has been so given.

(4) In making an order under this section with regard to any school, the board of education shall have regard to the ownership of the school building, and to the principles on which the education given in the school has been conducted in the past.

(5) The board of education may, if they think that the circumstances of the case require it, make any interim order on any application under this section, to have temporary effect until the final order is made.

(6) The body of managers appointed under this act for a public elementary school not provided by the local education authority shall be the managers of that school both for the purposes of the elementary education acts, 1870 to 1900, and this act, and, so far as respects the management of the school as a public elementary school, for the purpose of the trust deed.

(7) Where the receipt by a school, or the trustees or managers of a school, of any endowment or other benefit is, at the time of the passing of this act, dependent on any qualification of the managers, the qualification of the foundation managers only shall, in case of question, be regarded.

(8) The board of education may, on the application of the managers of the school, the local education authority, or any person appearing to them to be interested in the school, revoke, vary, or amend any order made under this section by an order made in a similar manner; but before making any such order the draft thereof shall, as soon as may be, be laid before each House of Parliament, and if within thirty days, being days on which Parliament has sat, after the draft has been so laid before Parliament, either house resolves that the draft, or any part thereof, should not be proceeded with, no further proceedings shall be taken thereon without prejudice to the making of any new draft order.

Group schools one management.

12. (1) The local education authority may group under one body of managers any public elementary schools provided by them, and may also, with the consent of the managers of the schools, group under one body of managers any such schools not so provided.

(2) The body of managers of grouped schools shall consist of such number and be appointed in such manner and proportion as, in the case of schools provided by the local education authority, may be determined by that authority, and in the case of schools not so provided, may be agreed upon between the bodies of managers of the schools concerned and the local education authority, or in default of agreement may be determined by the board of education.

(3) Where the local education authority are the council of a county, they shall make provision for the due representation of minor local authorities on the bodies of managers of schools grouped under their direction.

(4) Any arrangement for grouping schools not provided by the local education authority shall, unless previously determined by consent of the parties concerned, remain in force for a period of three years.

Endow

13. (1) Nothing in this act shall affect any endowment or the discretion of any trustees in respect thereof: *Provided*, That, where under the trusts or other provi-

sions affecting any endowment the income thereof must be applied in whole or in part for those purposes of a public elementary school for which provision is to be made by the local education authority, the whole of the income or the part thereof, as the case may be, shall be paid to that authority, and, in case part only of such income must be so applied and there is no provision under the said trusts or provisions for determining the amount which represents that part, that amount shall be determined, in case of difference between the parties concerned, by the board of education; but if a public inquiry is demanded by the local education authority, the decision of the board of education shall not be given until after such an inquiry, of which ten days' previous notice shall be given to the local education authority and to the minor local authority and to the trustees, shall have been first held by the board of education at the cost of the local education authority.

(2) Any money arising from an endowment, and paid to a county council for those purposes of a public elementary school for which provision is to be made by the council, shall be credited by the council in aid of the rate levied for the purposes of this part of this act in the parish or parishes which in the opinion of the council are served by the school for the purposes of which the sum is paid, or, if the council so direct, shall be paid to the overseers of the parish or parishes in the proportions directed by the council, and applied by the overseers in aid of the poor rate levied in the parish.

Apportionment of school fees.

14. Where before the passing of this act fees have been charged in any public elementary school not provided by the local education authority, that authority shall, while they continue to allow fees to be charged in respect of that school, pay such proportion of those fees as may be agreed upon, or, in default of agreement, determined by the board of education, to the managers.

Schools attached to institutions.

15. The local education authority may maintain as a public elementary school under the provisions of this act, but shall not be required so to maintain, any marine school, or any school which is part of, or is held in the premises of, any institution in which children are boarded, but their refusal to maintain such a school shall not render the school incapable of receiving a parliamentary grant, nor shall the school, if not so maintained, be subject to the provisions of this act as to the appointment of managers, or as to control by the local education authority.

Power to enforce duties under elementary education acts.

16. If the local education authority fail to fulfil any of their duties under the elementary education acts, 1870 to 1900, or this act, or fail to provide such additional public-school accommodation within the meaning of the elementary education act, 1870, as is, in the opinion of the board of education, necessary in any part of their area, the board of education may, after holding a public inquiry, make such order as they think necessary or proper for the purpose of compelling the authority to fulfil their duty, and any such order may be enforced by mandamus.

PART IV.—*General.*

Education committees.

17. (1) Any council having powers under this act shall establish an education committee or education committees, constituted in accordance with a scheme made by the council and approved by the board of education; *Provided*, That if a council having powers under Part II only of this act determine that an education committee is unnecessary in their case, it shall not be obligatory on them to establish such a committee.

(2) All matters relating to the exercise by the council of their powers under this act, except the power of raising a rate or borrowing money, shall stand referred to the education committee, and the council, before exercising any such powers, shall, unless in their opinion the matter is urgent, receive and consider the report of the education committee with respect to the matter in question. The council may also delegate to the education committee, with or without any restrictions or conditions, as they think fit, any of their powers under this act, except the power of raising a rate or borrowing money.

(3) Every such scheme shall provide—

(*a*) for the appointment by the council of at least a majority of the committee, and the persons so appointed shall be persons who are members of the council, unless, in the case of a county, the council shall otherwise determine;

(*b*) for the appointment by the council, on the nomination or recommendation, where it appears desirable, of other bodies (including associations of voluntary schools), of persons of experience in education, and of persons acquainted with the needs of the various kinds of schools in the area for which the council acts;

(*c*) for the inclusion of women as well as men among the members of the committee;

(*d*) for the appointment, if desirable, of members of school boards existing at the time of the passing of this act as members of the first committee.

(4) Where under any local act the expenses incurred in any borough for the purposes of the elementary education acts, 1870 to 1900, are payable out of some fund or rate other than the borough fund or rate, the expenses of the council of that borough under this act shall be payable out of that fund or rate instead of out of the borough fund or rate.

(5) Where any receipts or payments of money under this act are entrusted by the local education authority to any education committee established under this act, or to the managers of any public elementary school, the accounts of those receipts and payments shall be accounts of the local education authority, but the auditor of those accounts shall have the same powers with respect to managers as he would have if the managers were officers of the local education authority.

Borrowing.

19. (1) A council may borrow for the purposes of the elementary education acts, 1870 to 1900, or this act, in the case of a county council as for the purposes of the local government act, 1888, and in the case of the council of a county borough, borough, or urban district as for the purposes of the public health acts, but the money borrowed by a county borough, borough, or urban district council shall be borrowed on the security of the fund or rate out of which the expenses of the council under this act are payable.

(2) Money borrowed under this act shall not be reckoned as part of the total debt of a county for the purposes of section sixty-nine of the local government act, 1888, or as part of the debt of a county borough, borough, or urban district for the purpose of the limitation on borrowing under subsections two and three of section two hundred and thirty-four of the public health act, 1875.

20. An authority having powers under this act—

Arfangements between councils.

(*a*) May make arrangements with the council of any county, borough, district, or parish, whether a local education authority or not, for the exercise by the council, on such terms and subject to such conditions as may be agreed on, of any powers of the authority in respect of the management of any school or college within the area of the council; and

(*b*) If the authority is the council of a noncounty borough or urban district may, at any time after the passing of this act, by agreement with the council of the county and with the approval of the board of education, relinquish in favor of the council of the county any of their powers and duties under this act, and in that case the powers and duties of the authority so relinquished shall cease, and the area of the authority, if the powers and duties relinquished include powers as to elementary education, shall, as respects those powers, be part of the area of the county council.

Provisional orders and schemes.

21. (1) Sections two hundred and ninety-seven and two hundred and ninety-eight of the public health act, 1875 (which relate to provisional orders), shall apply to any provisional order made under this act as if it were made under that act, but references to a local authority shall be construed as references to the authority to whom the order relates, and references to the local government board shall be construed as references to the board of education.

(2) Any scheme or provisional order under this act may contain such incidental or consequential provisions as may appear necessary or expedient.

(3) A scheme under this act, when approved, shall have effect as if enacted in this act, and any such scheme, or any provisional order made for the purposes of such a scheme, may be revoked or altered by a scheme made in like manner and having the same effect as an original scheme.

Provision as to elementary and higher education powers respectively.

22. (1) In this act and in the elementary education acts the expression "elementary school" shall not include any school carried on as an evening school under the regulations of the board of education.

(2) The power to provide instruction under the elementary education acts, 1870 to 1900, shall, except where those acts expressly provide to the contrary, be limited to the provision in a public elementary school of instruction given under the regulations of the board of education to scholars who, at the close of the school year, will not be more than sixteen years of age: *Provided*, That the local education authority may, with the consent of the board of education, extend those limits in the case of any such school if no suitable higher education is available within a reasonable distance of the school.

(3) The power to supply or aid the supply of education other than elementary includes a power to train teachers, and to supply or aid the supply of any education except where that education is given at a public elementary school.

Miscellaneous provisions.

23. (1) The powers of a council under this act shall include the provision of vehicles or the payment of reasonable travelling expenses for teachers or children attending school or college whenever the council shall consider such provision or payment required by the circumstances of their area or if any part thereof.

(2) This act shall, except as expressly provided, come into operation on the appointed day, and the appointed day shall be the twenty-sixth day of March, nineteen hundred and three, or such other day, not being more than eighteen months later, as the board of education may appoint, and different days may be appointed for different purposes and for different provisions of this act, and for different councils.

(3) The period during which local authorities may, under the education act, 1901, as renewed by the education act, 1901 (renewal) act, 1902, empower school boards to carry on the work of the schools and classes to which those acts relate shall be extended to the appointed day, and in the case of London to the twenty-sixth day of March nineteen hundred and four.

(4) This act may be cited as the education act, 1902, and the elementary education acts, 1870 to 1900, and this act may be cited as the education acts, 1870 to 1902.

LOCAL SCHOOL ADMINISTRATION UNDER THE NEW EDUCATION LAW.

The complicated administrative system for which the education law of 1902 provides was summed up in a speech by Mr. Bryce during the proceedings in the House of Commons. His analysis, which is cited below from a report of the session, referred to the bill as it stood before the amendment which gave two civil managers to every church school, a concession to which Mr. Bryce's speech materially contributed.

The Government said that their aim was to simplify the system of education, to define functions, and to remove occasion of friction. What is their scheme of authority? We have four authorities. At the top there is the board of education at Whitehall, which loses some of its control, but how much the Government will not or can not tell us. It is perfectly clear that Whitehall will have far less opportunity for using its influence for the improvement of schools, and it will no longer be able, as in times past, to work up inferior schools, for it will no longer be in the same direct contact with local managements. Below Whitehall we come to the county and borough councils. The councils have no powers except to raise and borrow money. They will not know anything about the condition of the schools. They will not know why the money is to be spent nor will they know whether the money is doing good, for they will have no contact with the schools. Then we have the education committees. The education committees, we are told, are to be supreme in everything except finance. They will have information, but without the powers to carry out any scheme that they believe required. They may propose expenditure, but it will not rest with them to vote the money. If the county council does not see the necessity for the expenditure which they propose or if the county council has other objects in view, such as local improvement, it may refuse the schemes which the education committees lay before it. When the county council refuses, the education committees will be paralyzed. A scheme for separating the county council and the education committees is a scheme for divorcing financial responsibility from administrative responsibility. The committee will have knowledge without power and the council will have power without knowledge. At the bottom of the series we come to the local managers. The local managers are one of the most intricate parts of this measure, for the local managers consist of two different sets of persons. About voluntary managers there is little doubt; they will be perfectly independent of the education committees. They are not appointed by the education committees, and they can not be removed by them. They are, we are told, to carry out the directions of the education committees as regards secondary education, but how can they be compelled to carry out these directions? At present if a board of management does not obey the instructions from Whitehall its grant is stopped, and it suffers; but if it disobeys the direction given by the education committee under this scheme, the education committee will suffer. If the local managers persist in disobedience, the only course which the education committees and the county council can follow will be to provide a school for themselves and charge the cost of building and maintaining the school upon the rates. Is it not perfectly clear that the local managers occupy a position of very great strength and importance? See how little power education committees have. Local managers may dismiss good masters or introduce religious instruction into the school which may be opposed to the wishes of all the Church of England parents of the parishes, and the education committee will not be able to interfere. As long as there is an average attendance at a school of 30, the county council must continue to support that school, even if they believe it to be needless.[a]

[a] Daily News (London), May 6, 1902.

and offer equitable, or at least acceptable, terms to those who were partially independent. But the financial reason was not the only one behind the cabinet's proposal. No system of national education in England can succeed if based on ostracism. Suppose, for a moment, that secular education could possibly be established in England, it would mean that such a so-called national system would be largely a sham. An immense number of parents would still persist in sending their children to denominational schools, with the result that a large quota of the rising generation would remain outside the pale of national superintendence and supervision. Such "nationalism," one may feel certain, is repugnant to the great majority of Englishmen. Now it is estimated that the denominational schools, capitalized at 3½ per cent, represent an income of over £700,000 a year. The principal terms on which the denominational bodies agreed to enter the trust were the nomination of their own teachers and of a majority of the school managers in return for the loan of their buildings to the State. The immense gain of bringing practically all our schools under one head is so great that the bargain would seem a satisfactory one from the national point of view.

THE CLERGY AND THE EDUCATION ACT.

By D. C. LATHBURY.

[From the Nineteenth Century and After, January, 1903.]

The education bill of 1902 has contained many surprises, but the greatest of them has been reserved for the clergy of the Church of England. With few exceptions they saw nothing in the bill but an end to a financial burden. Their schools were to be maintained out of the rates, and if the obligation to keep the buildings in repair caused some of them a passing anxiety it was slight in comparison with the relief afforded in other directions. That the bill would make a radical change in their own relation to their schools never occurred to them. Nor, indeed, did it occur to their opponents. A measure which embodies the greatest ecclesiastical revolution that the Church of England has seen since the Reformation is still regarded by Nonconformists as a formal confirmation of the clergy in all their traditional privileges. A measure which makes the vicar of each parish in which there is a church school the removable deputy of a lay committee is still commonly described as a fresh riveting of sacerdotal chains. The clergy may be pardoned for not being wise before the fact when as yet their adversaries have not become wise after it.

The explanation of this inability to realize what the bill would do must be sought in a remote past. Before the act of 1870 the elementary education of the country was practically in the hands of the clergy. They had taken it up when there was no one else to do it. For a generation, indeed, the State had contributed largely to the support and to a less extent to the building of voluntary schools. But the initiative in the vast majority of cases had lain with the clergy. As the Government grants were increased to meet new and larger conceptions of the meaning of education the burdens thrown on the clergy grew in at least an equal degree. Nominally, indeed, they were borne by the body of subscribers to the schools. But these subscribers had to be obtained by the importunity, stimulated by the example, and not infrequently replaced by the self-sacrifice of the clergy. It was only natural, therefore, that in the clerical scheme of the universe the parish school should hold a place only second to that of the parish church. Indeed, as the parish school had often to be kept going out of the vicar's own pocket, while the parish church kept itself, there was some excuse for his thinking it the more important of the two. The act of 1870 altered all this. The elementary education of the country became the concern of the State. The clergy were no longer the sole providers of schools. They had indeed provided those which the State found in existence, and they were encouraged to provide more. But their default no longer left their parishes schoolless; it only insured the setting up of a State school. As we look back thirty years it seems strange that the significance of this change was not better understood. In giving voluntary schools a formidable rival in the shape of board schools the act took away one of the most effective inducements to the continuance of voluntary subscriptions. This was the origin of the "intolerable strain" of which so much has been heard, and of the desire of the clergy to gain access to the inexhaustible fund out of which the board schools were able to make good their deficiencies.

For a long time, as the late Archbishop of Canterbury told us not long ago, this desire was kept in check by the fear that aid from the rates meant control by the ratepayers. In an evil hour some ingenious person bethought him of the plan which

sounded as to the terms which would satisfy the church, and if the spiritual welfare of the vast army of children in board schools had been very much in their thoughts, it is inconceivable that the bill when it came should have contained no provision for their instruction. It has even been said—I do not know with what amount of truth—that there was a time when the Government were not indisposed to give the right of entry a prominent place in their measure, and only abandoned the idea in deference to episcopal opposition. Anyhow, the church, so far as her mind could be gathered from the bishops, the convocations, and the diocesan conferences, was willing to let those of her children who were in board schools go untaught, provided that she was allowed to throw the maintenance of her own schools on the rates. It was certain that the denominational right of entry to all schools could not be carried through Parliament unless the church was prepared to give the representatives of the ratepayers a majority of places on the boards of management, and rather than make this concession she left the children in board schools to the chances of the Cowper-Temple clause.

Two reasons—two presentable reasons, that is to say—may be assigned for this choice. A theory had been set up, having no known origin and applied to no other system of education, that religious and secular instruction must be given by the same teacher. No doubt this combination of functions had its advantages. It set the clergy free for other work, and it secured some knowledge of the art of teaching in the teacher. It is to be feared that by the side of the schoolmaster the vicar of the parish often showed to disadvantage. He had never learned how to give a lesson, and he, and the children, soon discovered that to do so is seldom a matter of intuition. On the other hand, the effective teaching of religion demands something more than mere technical aptitude and the power of keeping order in a class. It requires a strong sense of the importance of the work the teacher has taken upon himself and of the part that religion plays in the formation of character. In theory the schoolmaster in a church school had been chosen for his religious quite as much as for his secular qualifications. But the secular qualifications were far more easily tested and the absence of them entailed the loss of the Government grant. In many cases, therefore, the fact that a teacher had been a student at a church training college was held sufficient as a religious test, and it is difficult to say what other could have been suggested for general adoption. But when two years' residence at a church training college became a regular mode of entry into the teaching profession it necessarily ceased to have any religious significance. I once asked the principal of a great training college what the religious standard among the students was. "Very much," he said, "what it is among the young men from whom they are taken." With most of them the professional side of their work was more absorbing than the religious side. They got up a certain minimum of religious knowledge, but there their interest in the subject ended. It is evident that teachers of this quality were not likely to do much toward the creation of that special atmosphere which is often described as the glory of a church school. That the existence of such an atmosphere is a very great advantage from the point of view of religion, I should be the last to deny. But I contend, first, that it is not created by the mere fact that the teachers come from St. Mark's or Whitelands, and, next, that where it exists it must necessarily constitute a very serious grievance to nonconformists. It is an awkward fact that in some 8,000 parishes there is only one school and that a church school. In the great majority of cases nonconformist parents have not, so far as appears, objected to this. The religious character of the school has not been marked enough to exercise any real influence on their children. If any appreciable number of these schools were what a church school ought to be—if, that is, the purpose of all concerned in them were to present the church in the most favorable light possible, and if that purpose were carried out with the deliberate enthusiasm which befits men to whom religion is the great end of life—what might not be the effect on nonconformist children? Proselytism, in the strict sense of the word, there would be none. Men who value their own creeds are not the men to treat lightly the creeds of others. But it is a commonplace that the surest of all methods of conversion is to make a religion attractive, to create in those who are outside a desire to be like those whom it animates. If every church school in England were what a very few are, nonconformist parents would have real cause for alarm. As it is, they have next to none, but that is because such church schools as I have described are only to be found here and there. The atmosphere argument either proves nothing or proves a great deal too much. Either the atmosphere is not to be found, or it is an atmosphere which ought not to exist except where there are more schools than one.

We are now in a position to review the nature of the choice which the clergy have made. The control of elementary education had passed from them in 1870. For a time they hoped that board schools would only have to be provided in a few excep-

majority on the committees of management, and maintenance out of the rates, and we are content." They have got both.

But the fact that the clause which has aroused so much opposition among the clergy was in the bill all along, though it clears the Government of blame, does not make it, and ought not to make it, less of a shock to the clergy. What the bill does is to laicize the church schools. The opposition wanted to do more than this. Their contention was that church schools ought to be secularized. This demand the Government have consistently resisted. The church schools were to remain church schools in name. They were to retain their denominational character so far as this is compatible with the rejection of a foundation principle of the denomination to which they are supposed to belong. A church school under the Kenyon-Slaney clause is like a Baptist school from which all mention of adult baptism is excluded, or a Wesleyan school which knows nothing of the conference. So long as the education act of 1902 remains in force, so much of a clergyman's pastoral work as has been done in the school will be done in subjection to the laity. The right to pronounce whether a particular doctrine is the doctrine of the Church of England will, it is true, belong to the bishops, but to the laity will belong the more practically important function of deciding whether the doctrine in question shall be taught in a Church of England school.

The speeches of the lord chancellor in the House of Lords and of the prime minister in the House of Commons show that the powers now for the first time intrusted to the laity are intended for use, not for show. The lay managers are meant to serve a purpose. The Government are evidently alarmed at the threatened revival of the agitation of 1898. If they look at the matter from the strictly ministerial point of view they may possibly be right. An antiritualist movement of any magnitude in the country generally seems to me a most unlikely event. I could almost say that I wish it were more likely than it is; for an anti-ritualist movement, where it is genuine and not a mere political dodge, is, at least, evidence that those who take part in it care something about religion. It is better that a man should wish to suppress confession because he thinks that it puts the priest in the place of God than that he should extend to it a contemptuous tolerance because he does not really believe that there is such a thing as sin. The reason why we are secure against an anti-ritualist agitation on a large scale is that a large proportion of the electorate has ceased to take any interest in religion. The vision of a future life, the thought of their own position in regard to that future life, no longer excites either hope or fear. But a prime minister has to take into account the state of opinion in his party as well as in the country, and I can easily believe that Mr. Balfour finds this part of the prospect less satisfactory. The squire is seldom a sacerdotalist, and the squire is still a power in the Unionist ranks. On the 17th of last month Mr. Balfour said plainly that if the management clause of the act had not been understood to exclude clerical management the house would not have looked at it. "I had difficulty enough," he went on, "in passing it as it was * * * difficulty among those who are my most constant and loyal friends on this side of the house." These words reveal a state of feeling in the Unionist party of which few of the clergy had any suspicion. More than any other party at this moment it is an anticlerical party. It may seem absurd to say this just when the whole Nonconformist body are in arms against the alleged greed and arrogance of the Anglican clergy. But there is a very real difference between the two tempers. The Nonconformists dislike the clergy because they are established. If the Church of England were a voluntary body they would no more concern themselves with her clergy than they do with the Roman Catholic clergy. The Unionists whom Mr. Balfour had in his mind do not, indeed, dislike the clergy, but they like them—as some people like cats—in their place, and that place a strictly subordinate one. The Kenyon-Slaney clause exactly meets this feeling. It does not forbid the managers of a church school to leave the clergyman in undisturbed possession of the position he has hitherto held. Provided that he behaves himself nicely, he will be allowed and even pressed to remain. It is only when his preaching or ritual happens to offend them that they will make use of their new powers. In their eyes the clergyman is a useful agent, but a bad principal, and an agent they mean him to remain. So long as the clergy were content to accept the status thus assigned to them there was no need to register it in an act of Parliament. Now that so many of them take a different view of their duties and responsibilities they need to be restrained by legislation. But, as Mr. Balfour explained when the Kenyon-Slaney amendment was first submitted to the House of Commons, the passing of a clergy discipline bill would be a long, troublesome, and doubtful business. The advantage of the education act as completed by this clause is that it does half the work of a clergy discipline act without either trouble or uncertainty. It gives the school managers the power of hitting the clergy in what, for various reasons, is a

be administered from the county center in each case, will set up for themselves education committees for elementary education. This is not quite the scheme of educational coordination to introduce which we understood in the earlier days of the education debates was the Government's fondest aim.

But this is not all. Having given way to the local patriotism of the middle-sized urban areas and promised them education committees of their own for elementary education, the Government found itself confronted with the smaller urban areas. "If you give an educationally misplaced measure of autonomy to 10,001, what do you propose to do for 9,999?" Thus the inevitable political pressure. "Very good," said the Government, amiably forgetting all its old zeal for coordination, avoidance of overlapping, prevention of the duplication of administrative machinery, and so on and so on, "we will allow every municipal borough with under 10,000 people and every urban district with under 20,000 to levy over its own area an extra penny (over and above the 2 pence the county will levy) for higher education. If it cares to do this it may have autonomy, financial and administrative, for purposes of higher education so far as the penny will carry it; at the same time it will be governed by the county in respect of its elementary education." This charmingly characteristic little bit of complaisance on Mr. Balfour's part confronts us with the possible calling into being of 108 further education committees for municipal boroughs of under 10,000 people, and of 745 more for urban districts of under 20,000 people.

Thus, in the "one-authority" act, we get the following:

LOCAL EDUCATION AUTHORITIES WHICH MUST BE CREATED.

Autonomous for elementary education and autonomous for higher education up to 2 pence in the pound. (This limit was afterwards removed):	
The county boroughs	67
Autonomous for elementary education and autonomous for higher education up to a rate of 2 pence in the pound:	
The administrative counties	62
Autonomous for elementary education and autonomous for higher education up to 1 pence in the pound. (Also liable to be rated for higher education, without autonomy, by the county council up to 2 pence in the pound):	
The municipal boroughs with over 10,000 population	140
Autonomous for elementary education and autonomous for higher education up to 1 pence in the pound. (To be rated also by county, without autonomy, up to 2 pence):	
Urban districts with population of over 20,000	61

LOCAL AUTHORITIES WHICH MAY BE CREATED.

Non-autonomous for elementary education, but autonomous for higher education up to a limit of 1 pence in the pound. (Ratable also up to 2 pence more, without autonomy, by the county council):	
The municipal boroughs of under 10,000 population	108
Non-autonomous for elementary education, but autonomous for higher education up to 1 pence in the pound. (Ratable also up to 2 pence more, without autonomy, by the county council):	
Urban districts up to a 20,000 population	745

For myself I hope the latter 853 will all resolve to throw in their lots with the county for higher education. It is little they can do with their penny rates, and it would be the maxium of stupidity thus to cut holes in the general scheme of higher education for any county.

THE EDUCATION COMMITTEES.

Having resolved to destroy the ad hoc local education authorities, and to go to the municipal councils for its new education authorities, the Government at once found itself faced with the fact that already the municipal councils have enough to do. So, though nominally they are to be the "authority" in each case, directly the new responsibility is conferred upon them they must delegate it to another body—the "education committee." The function of the municipal council is confined to "the power of raising a rate or borrowing money." Educational administration is delegated in each case to the "education committee." In every urban district, of whatever size, this "education committee" must consist, as to a majority of its members, of members of the municipal council. In the administrative counties it may so consist. But even here the county council must nominate a majority of the persons to serve

these including such towns as Bilston, Bishop's Stortford, Clevedon, Ilfracombe, Nantwich, Rhyl, Rugby, and Stretford. Finally, about half the rural parishes of the country (or, as nearly as I can gather, some 5,000) will also be rated for the first time. Of the entire rateable value of England and Wales—£186,500,000—quite sixty millions will thus be brought under compulsory contribution toward elementary education for the first time.

In the administrative counties there will be a general county rate laid for elementary education. This must reach 3 pence in the pound, or the locality will be fined a portion of its share of the exchequer grants. The danger here is that this "3 pence in the pound" may be taken as a maximum. Indeed, the attorney-general, Sir Robert Finlay, says he is sorry that it has not been possible to fix it as a statutory maximum for the agricultural areas under the act. This, as coming from a Scotsman, strikes me as rather startling. Of course, where there has been no rate raised in the past this 3 pence in the pound is 3 pence to the good. But I must point out that at the present time in the areas where a local rate for elementary education is levied the average amount so raised is in the English boroughs 9.4 pence in the pound, in the English parishes 15.5 pence in the pound, in the Welsh boroughs 13.1 pence in the pound, and in the Welsh parishes 13.6 pence. I must also point out that last year 92 per cent of the English school boards and 94 per cent of the Welsh school boards found it necessary to raise a rate which in each case was higher than 3 pence. Further, over a third of the areas rated in England and Wales were rated at a shilling and upward in the pound.

It must also be remembered that rate aid is now to be given, roughly, to double as many children as heretofore. It is now to be raised on behalf of the denominational as well as on behalf of undenominational school children. So any talk of even keeping the rate—in districts where it has hitherto been levied—at anything like its present level can only mean that part of the efficiency of the present board school is to be sacrificed to make up the leeway between them and the voluntary schools. For instance, take a town like Gloucester. The present school-board rate is 10 pence on behalf of 2,500 children in average attendance in the board schools. But you have now to rate-aid 4,000 voluntary-school children at 15 shillings a head on the rates—which is a moderate estimate—and this would raise the Gloucester rate from 10 pence to 1 shilling 2 pence. Again, take the case of Birkenhead. The rate is, roughly, 5 pence on behalf of the 2,800 board-school children. Add to the rates a share of the maintenance charge for 12,580 other children now in the voluntary schools and you raise the rate to over 9 pence. Take, again, the extreme case of Blackburn. There you have 1,000 school-board children and a rate of 3½ pence. But you have now to rate aid 18,260 voluntary-school children. On the 15-shillings-a-head estimate the people of Blackburn would need to raise their rate from 3½ pence to 10 pence.

As I shall have to explain presently, this necessity has been in some degree mitigated by the provision during the passage of the act through committee of about £1,360,000 further grants in aid of elementary education from the imperial exchequer. On the other side of the account, however, there is the fact that not only have you to rate-aid double as many elementary-school children as before, but you have to proceed with the development of higher education, which is now to include all pupil-teacher instruction, all training of teachers, and a very great deal of evening-school work. The counties in respect of this higher education are to rate themselves up to 2 pence in the pound, with a further subsidy from the rates by grace of the local government board. The county boroughs may rate themselves for higher education up to any limit. Now, 2 pence in the pound on the rateable value of England and Wales comes to £1,554,000, which is not much more than the additional exchequer grants provided for elementary education. Therefore, let no locality be in a fool's paradise over this matter. Where it has never been rated before for elementary education it must face with equanimity a new rate which it will have to levy, and face that rate without any jeremiads about 3 pence in the pound. Where a rate has been previously levied the locality must be prepared, despite the additional exchequer grant, and having regard to new obligations placed upon it in respect of higher education, to see its present rate increased by anything from 3 pence up to 6 pence in the pound—and even more in certain cases. Otherwise the board-school Peter will be robbed to pay the voluntary-school Paul.

With regard to the new grant in aid of elementary education, a word or two as to its dispensation will be useful. The Government annexes the special-aid grants under the voluntary schools and necessitous school boards act of 1897, in all a sum of £860,000 a year; and to this it adds an entirely new State grant of about £1,360,000. These two together, making in all a special-aid grant of £2,220,000, are to be dispensed on the following plan: First of all, there is to be a fixed grant of 4 shillings

may seem to them desirable, subject to the sanction of the board of education, to supply or to aid the supply of education, other than elementary, in their respective areas. To these authorities also is transferred the control of certain public funds (the surplus of the liquor duties) applicable to secondary, or, as the law terms it, "higher" education, and the raising of additional funds for the purpose by means of a local tax. In fact, the local authorities are practically unrestricted in respect to these powers, excepting that their measures must be sanctioned by the Board of Education. An English critic points out that—

> The bill contents itself with drawing the line between elementary and non-elementary education, to which it applies the omnibus title of "higher." This includes not only secondary and technical education, but training colleges and evening schools, except those in which the entire teaching is elementary. No terminus ad quem is assigned to the definition, so that a progressive county council will be able, if it please, to subsidize education of a university type.[a]

The word higher is misleading to the American reader, accustomed to its use in respect to colleges and universities, but if secondary be substituted in this relation it must be taken in a very comprehensive sense, covering all education above the most elementary and below the university province. The law is clear as to the purpose of making this extensive department a matter of national concern in the same sense as elementary education. The section of the new law referred to will therefore be best understood in the light of a long series of efforts in respect to secondary education, of which it may be regarded as the consummation.

HISTORICAL SURVEY OF THE MEASURES RELATING TO SECONDARY EDUCATION.

The history of efforts looking toward the better organization of secondary education extends back to the early part of the first half of the nineteenth century. These efforts followed for a time two distinct lines, but have been gradually merged into one. On the one side were efforts relating to long-established schools, and on the other efforts to make provision for new demands arising from the industrial revolution that marked the last century. We shall consider these measures in the order of this classification, adding for their better understanding such statistics as are available, and typical programmes showing the scholastic scope of the various classes of schools included in the survey.

I. COMMISSIONS OF INQUIRY INTO EDUCATIONAL ENDOWMENTS.

The unorganized state of secondary schools in England was the burden of a report by Matthew Arnold, issued in 1865, which attracted world-wide attention.[b] The author had been deputed by the British Schools Inquiry Commission to investigate and report upon the condition of secondary schools on the Continent, and he did not hesitate to expose the deficiencies of his own country in this respect as compared with rival nations. This report itself was, however, the sign of an interest which had manifested itself in high places as early as 1818. In that year Lord Brougham submitted to Parliament a bill for the appointment of a royal commission to inquire into educational charities in England and Wales. His efforts resulted in the appointment of such a commission to deal with the London charities. Year after year until 1837 the appointment was renewed and the scope of inquiry somewhat extended.

By these limited investigations it was made evident that educational endowments, and especially those intended originally for the benefit of the poorer classes, were too often wasted and misapplied. This perversion of the funds was a matter of

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[a] Cloudesley Brereton in Schoolmaster's Yearbook, 1903, Part III, pp. 1, 2.

[b] Report on the system of education for the middle and upper classes in France, Italy, Germany, and Switzerland. British Schools Inquiry Commission, Vol. VI.

existing in England. The word public, it should be observed, is here used in a different sense from that current among us. The endowed schools were regarded as public because by the terms of their trust deed or by means of scholarship funds they were, theoretically at least, within reach of capable lads in almost every class of society. Special stress is placed upon this feature of the endowed schools as contrasted with proprietary schools which were restricted generally to a particular class of well-to-do people, and private schools which were apt to be exclusive and expensive or else of little account.

The report of the British Schools Inquiry Commission made it evident that the country was alarmingly deficient in secondary schools for the middle and laboring classes. There were estimated to be a hundred towns with a population of 5,000 or more that had no endowed grammar school. London, whose population was nearly 3,000,000, had only 26 endowed schools with less than 3,000 pupils. More than half the population of the city (1,726,989) were destitute of any endowment for secondary education. Not only was the supply of public schools far below the demand, but those that existed were often badly managed, their resources wasted, and their influence meager. In particular the commissioners note the dearth of day schools.

> For the upper classes of the community [they say] there is a sufficient supply of public boarding schools and a very small supply of public day schools; for the upper section of the middle class there is a smaller supply of public boarding schools and a very insufficient supply of public day schools; for the lower section of the middle class and the upper section of the artisans there is almost no supply of public boarding schools, and a very poor supply of public day schools giving an education higher than the national (i. e., elementary) schools.[a]

As to studies, the commissioners note the general absence of instruction in any but classical subjects.

> The universities [they observe], by requiring Greek and Latin, make the existence of semiclassical or nonclassical education of the best kind almost impossible. What is found is due mainly to the examination for admission to Woolwich * * * there is seldom made an attempt of any earnestness and importance to give the education of the schools established in Germany under the name of Realschulen * * * Public schools giving a fair general education, but laying especial stress on such mechanical and physical sciences as shall best assist the scholars who are intended for manufacturing or mechanical pursuits, hardly exist. The Bristol Trades School is the most noticeable instance which has been brought before us.

The report of the Taunton commission, like that of its predecessor, led to the passage of a law (endowed schools act, 1869) which has had important results in respect to the particular schools affected. It embodied, however, only a single one of the recommendations of the commission, namely, that calling for a central authority to draft new schemes for the administration of the endowments. This duty was intrusted at first to three special commissioners; in 1874 it was transferred to the charity commissioners (constituted under law of 1853), and finally, in 1899, to the newly constituted Board of Education.

The practical results of the administrative reform growing out of the labors of the Taunton commission were shown by a return made to the House of Commons in 1892. From this document it appears that in the previous year the amount of income of educational endowments available for secondary education, exclusive of property of an incalculable value in the form of sites and buildings for schools, reached a total of £697,132 ($3,485,660). Of 1,262 distinct endowments, 668 were then worked under schemes approved by the commission.

A comparison with the earlier conditions shows that new foundations and discoveries had nearly doubled the number of schools and enormously increased the revenues since 1868.[b] But while the endowed schools were thus enlarging their capacity

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[a] Report of British Schools Inquiry Commission, Vol. I, pp. 102, 103.

[b] Educational Systems of Great Britain and Ireland, by Graham Balfour, p. 164.

means of maintaining their efficiency and promoting unity of aim along common lines. The Government has gradually developed a service of this kind, but other agencies entered much earlier and with much more vigor upon this work. The College of Preceptors, an association of schoolmasters (belonging for the most part to private schools), was formed in 1846 for the organization and improvement of the profession. This association, which received a charter in 1849, anticipated all recommendations in respect to the improvement of secondary schools by organizing at once a system of examinations for individual schools. In December, 1853, the "college" went further by arranging for the examinations of pupils at the headquarters in London, both boys and girls being admitted. The subjects included Latin, French, English history, geography, mathematics, drawing, physical science, and Greek, a very liberal programme for that early date.

In 1857 an experiment was made in the examination of students by a few university men, with such success that the University of Oxford was induced to place the system on a permanent footing, and appointed a body of delegates to take charge of the service. Soon after, Cambridge took similar action, and in 1858 the first examinations were held under the auspices of the universities. These were at first conducted for boys only, but in 1863 the Cambridge syndicate admitted girls, a precedent subsequently followed by Oxford. These examinations, known as the "local examinations," have had enormous growth—the number of candidates examined at the different centers increasing from 1,219 in 1860 to 22,030 in 1897. Those who pass the examinations receive a certificate (junior or senior, according to the standard reached), which is of substantial value to the holder.

As the result of an application from the head masters of public schools, made originally in 1870, and renewed in 1872, the two universities formed in 1873 a joint board for the examination of schools and individuals, and consented to recognize the certificates of the board as exempting undergraduates from their matriculation examinations. Under these advantageous conditions, the examinations of the board were begun in schools for boys in 1874. In 1878 the service was extended to schools for girls, and in 1883 a lower class of certificates was instituted, the standard of the higher being still maintained. Commercial certificates, as in the local examinations, were tried and abandoned. The agents of the board are sent to individual schools for the examination of candidates. For certificate purposes all papers are submitted to examiners assembled in alternate years at Oxford and Cambridge. The word "inspection" entered on the paper denotes that the examiner inspects and reports on sets of papers first marked by masters of the school.

The number of candidates for the examinations of the joint board (Oxford and Cambridge schools examination) rose from 700 in 1880 to 3,073.

These examinations have not only had a salutary effect upon schools and pupils, but they must be counted among the many influences that have led to the legislative effort for placing secondary education on a sound national basis.

III.—MOVEMENTS FOR PROMOTING SCIENCE AND ART INSTRUCTION.

The development of a new class of studies which had formerly no place in the curricula of secondary schools has been fostered by a series of efforts quite distinct from those which related to schools long established and working on traditional lines.

The efforts in respect to the new studies sprang from the same impulses as those pertaining to elementary education, and they followed the same general course, beginning in private initiative and leading up to Government aid and surpervision. Specially noteworthy in the pioneer stage of the movement are the efforts of Dr. Birkbeck, the founder of "mechanics' institutes," which multiplied rapidly both in England and in Scotland during the first quarter of the last century. At the time Dr. Birkbeck was the professor of natural philosophy at Anderson's Institution in

schools in art and science with the award of grants for the same, friction and waste ensued. The unity of the elementary schools was impaired, while their upward extension complicated the problem of secondary education. The confusion was further increased by measures which gave educational powers to the county and city councils, namely, the law of 1889, authorizing the local councils to levy a tax (not exceeding a penny in the pound) for technical education, and the law of 1890 placing at their disposal the surplus of the liquor duties with the privilege of applying the funds to the same purpose. These complications resulted in the withdrawal of the science and art grants from the elementary schools in 1897, and the subsequent concentration of all the educational functions of the central government in a single board.

In pursuance of the same policy the administration of the science and art grant for Scotland was transferred in 1898 to the Scotch Education Department, and in 1900 the corresponding grant for Ireland was transferred to the Irish Department of Agriculture and Technical Instruction.

The Board of Education (England) comprises at present, besides the administration of public elementary education, the functions formerly exercised by—

(1) The charity commissioners in regard to educational endowments in England and Wales (these powers include the drafting of schemes for the regulation of educational endowments and "administrative inspection, such as that of inquiring into the financial position of the school, the statutes or other regulations under which it is governed, and the powers and duties of the governing body.") [a]

(2) The science and art department, including the conditions to be met by schools and classes desiring to share in the science and art grants, the formulation of programmes, the conduct of examinations, and the distribution of the grant, which now amounts to nearly £2,500,000 annually.

(3) The agricultural department, i. e., the administration of special grants intended to foster instruction in agriculture.

The Board of Education is also authorized to inspect all secondary schools that apply for the service, which virtually opens up to its influence the entire province of secondary education without interfering at all with the powers respecting higher education conferred upon the county councils by the law of 1902. The similar powers conferred upon county authorities in Wales by a law of 1899 are henceforth to be exercised under the general oversight of the Board of Education.

From this brief survey of a long series of movements pertaining to education of a higher order than that given in elementary schools, it will be seen that they have been making gradually but surely for increased provision of secondary schools, variation in type, and unified control or supervision. The policies that have been adopted from time to time are due to conditions peculiar to the country, but the general course of development assimilates the movement to what has been going on in other countries.

STATE OF SECONDARY EDUCATION IN SCOTLAND AND IRELAND.

Scotland.—The educational affairs of Scotland are administered by the Scotch Education Department, which has no connection with the English board. This division of the kingdom enjoys peculiar preeminence in respect to the local organization of secondary education. Elementary and secondary schools are alike managed by local elected school boards, and there is no marked line of distinction between the two grades.

In 1888 the department adopted the plan of a leaving certificate for students who on the completion of a course of secondary study should pass an examination for the certificate.

[a] Report of the Board of Education, 1899-1900.

TABLE B.—*Showing the number and proportion of graduates and of nongraduates on the staffs of the various schools, inclusive of the head master or head mistress.*

Schools.	Men teachers.						Women teachers.					
	Regular staff.			Visiting staff.			Regular staff.			Visiting staff.		
	Graduates.	Nongraduates.	Graduates, per cent of whole.	Graduates.	Nongraduates.	Graduates, per cent of whole.	Graduates.	Nongraduates.	Graduates, per cent of whole.	Graduates.	Nongraduates.	Graduates, per cent of whole.
Boys'	4,165	3,285	55.9	545	2,410	18.5	117	925	11.3	107	471	18.5
Girls'	35	85	29.2	829	2,590	24.2	1,534	10,472	12.7	401	3,885	9.3
Mixed	205	587	25.8	42	358	10.5	150	1,782	7.8	14	326	4.1

TABLE C.—*Showing the number of schools having on their staff nongraduates exclusively attached to the school, inclusive of the head master or head mistress.*

Schools.	Number of schools in which the regular staff is wholly composed of—			Total schools having only nongraduates on regular staff.	Percentage of total number.
	Nongraduate men.	Nongraduate women.	Nongraduates of both sexes.		
Boys'	351	151	125	626	32
Girls'	2	2,269	53	2,324	73.8
Mixed	43	705	128	876	81.3
Total	396	3,125	306	3,826	61.6

(2) In the official report for 1900–1901, the Board of Education present the following statements relative to the schools and classes participating in the science and art grants, together with other departments of secondary work ,that have come under inspection by the board. The statistics included in this presentation in some cases duplicate, as regards students, those given above, as many of the schools included in the foregoing tabulation maintain science and art classes.

During the session 1900–1901, the total number of students receiving science and art instruction under the Board of Education was 332,329, and the total number of schools or institutions in which such instruction was given was 2,288. These institutions comprise, (1) schools of science, in which scientific and general instruction is given, (2) science classes, (3) schools of art, and (4) art classes.

The grants paid in respect of the instruction given during the session, or of the examinations held at its close, amounted to £286,251 9s. Of this sum, £139,249 was paid upon attendances; £118,833 as capitation grant in schools of science; £2,687 upon the results of the annual examinations; £18,787 upon work sent up for the national competition in art, and £6,695 on account of pupil teachers and free students in art schools or classes.

The following table shows the number of students under instruction in science and art, and the amounts of grant paid, for the last ten years. It should be observed that the figures for the years previous to 1898 include those for schools in Scotland. In the year named the administration of the science and art grant for Scotland was transferred to the Scotch Education Department.

Year.	Science.		Art.		Total grants.	Equivalents in United State currency.
	Under instruction.	Grants.	Under instruction.	Grants.		
		£ s. d.		£ s. d.	£ s. d.	
1892	180,410	123,647 19 1	115,848	48,647 14 9	172,295 13 10	$861,478
1893	193,431	130,009 0 2	135,807	52,523 6 1	182,532 6 3	912,661
1894	180,686	140,390 15 1	136,324	56,746 3 4	197,136 18 5	985,684
1895	190,896	141,745 2 7	136,768	60,523 15 7	202,268 18 2	1,011,341
1896	177,700	157,916 15 9	146,193	73,222 7 9	231,139 3 6	1,155,695
1897	193,957	172,494 12 4	146,720	79,716 17 5	252,211 9 9	1,261,057
1898	158,370	169,522 19 3	120,771	72,178 13 8	241,701 12 11	1,208,508
1899	174,670	195,491 1 4	130,126	77,791 10 6	273,285 11 10	1,366,427
1900	167,180	204,606 3 0	125,231	74,680 4 0	279,286 7 0	1,396,431
1901	174,092	212,982 6 4	125,597	73,269 2 8	286,251 9 0	1,431,257

Further to illustrate the distinction between the schemes of public education fostered respectively by the English Board of Education and the Scotch Education Department are presented:

(5) Courses of instruction authorized by the Scotch Education Department (*a*) for elementary schools, (*b*) for higher grade schools.

(1) PROGRAMME OF STUDIES FOR ENGLISH PUBLIC SCHOOLS.

(*a*) ELEMENTARY SCHOOLS.

The course of instruction in infant schools and classes (ages 3 to 7 years) should, as a rule, include: Suitable instruction in reading, writing, and numbers; simple lessons on common things, appropriate and varied occupations, needlework, drawing, singing, physical exercises.

The course of instruction in schools for older scholars (7 to 15 years of age) is as follows:

(1) English, by which is to be understood reading, recitation, writing, composition, and grammar in so far as it bears upon the correct use of language; arithmetic, drawing (for boys), needlework (for girls), lessons, including object lessons, on geography, history, and common things; singing, which should as a rule be by note; physical training. To be taken, as a rule, in all schools.

N. B.—It is not necessary that all these subjects should be taught in every class.

One or more of them may be omitted in any school which can satisfy the inspector and the board that there is good reason in its case for the omission.

(2) Algebra, Euclid, mensuration, mechanics, chemistry, physics, elementary physics and chemistry, animal physiology, hygiene, botany, principles of agriculture, horticulture, navigation, Latin, French, Welsh (for scholars in schools in Wales), German, bookkeeping, shorthand (according to some system recognized by the board), domestic economy or domestic science, drawing (for girls), needlework (for boys). One or more of these is to be taken when the circumstances of the school, in the opinion of the inspector, make it desirable.

(3) Cookery, laundry work, dairy work, household management. For girls.

Cottage gardening, manual instruction. For boys.

Cookery. For boys in seaport towns.

Where manual instruction is taken it is desirable that suitable occupations leading up to it should be taken in the lower classes.

Any subject other than those mentioned may, if sanctioned by the board, be included in the course of instruction, provided that a graduated scheme for teaching it be submitted to and approved by the inspector.

(*b*) HIGHER ELEMENTARY SCHOOLS.

In accordance with the policy of making early distinction between children whose school life is destined to be very brief and those who may pursue their studies somewhat longer, the Board of Education recognizes as "higher elementary schools" a class of schools—

organized for the purpose of providing a more advanced instruction than can be given in the ordinary elementary schools for children between 10 and 15 years of age who are certified by an inspector of the board as qualified to profit by such instruction. The special object which they have in view is to qualify the children taught in them to enter any of those callings in which scientific methods have to be employed. With this intention the course of instruction, though not exclusively scientific, has been given a science basis, and all the scholars are trained to make accurate measurements and to perform and record simple experiments. One foreign language and elementary mathematics are included in the curriculum, while careful attention is given to drawing.

shows sixteen hours per week devoted to classics alone, exclusive of time allotted to that subject in preparation. Exact details of the amount so allotted are wanting, but in this and in all similar cases it may be assumed that the proportion of preparation given to classics and mathematics is a large one. * * *

It appears to be the practice to begin the teaching of Latin to boys as soon as they can read and write English with some facility. They usually reach this stage by the age of 9—the age at which they generally enter a preparatory school. On entry they at first devote somewhat less time than the rest of the school to Latin, but the hours are gradually increased as they go up the school until the point is reached at which Greek is begun, when the restrictions of the time-tables require some reduction to be made in favor of the new subject. * * *

Greek is sometimes not commenced before the age of 12. But this practice, affording as it does opportunity to devote attention to some of the least noticed but highly important subjects of the time-table, is practically impossible for schools that compete for scholarships; for them the standard of Greek required for scholarships is so high as to compel its inclusion in the curriculum generally at the age of 11 years, sometimes still earlier.

Mathematics.—Exact statistics of the age at which the teaching of algebra and euclid is begun and of the times devoted to those subjects are not deducible from the returns to hand. * * *

It is the usual practice to entirely reclassify the school for mathematics.

Scripture.—Although the weight given in entrance examinations (for secondary schools) to Scripture knowledge often approaches vanishing point, it is noteworthy that in no case is it omitted from the time-table (of preparatory schools), and that more time is assigned to it than to English language, history, geography, drawing, or dictation.

English language and grammar, geography, history, dictation.—One can not help feeling that the time allotted to these subjects is altogether inadequate, particularly in the case of schools such as those that are exemplified in Table I. * * *

The headmaster responsible for Table I notes at its foot: "I would gladly see more English[a] in my curriculum, but the standard of Latin, Greek, French, and mathematics is so high in scholarship examinations that English is knocked on the head. We have no time for it. The public schools require none—practically." In so saying this headmaster but voices the general feeling of the profession.

French and German.—French is taught in all schools, and there is great uniformity as to the time allotted to it. * * *

The general result of our system is that French is not and can not be taught as a living language. It is to be feared that the large majority of the teachers can not speak it, at least with fluent accuracy. Boys learn to read it and to write it. They learn also a considerable number of grammatical irregularities, and so doing they satisfy all the requirements of the public schools. * * *

German is not taught at all in 58.6 per cent of the schools that have made returns. Experience shows that four languages in addition to his own are much more than can be learned with advantage by any boy at one time. Therefore it is only as an alternative to Greek for boys intended for modern sides of schools or for army classes that German is taught.

Object lessons and elementary science.—In 72.5 per cent of the schools these are not attempted and in only 16.3 per cent are they taught to the top forms.

Drawing.—This subject appears to form part of the regular curriculum in 65 per cent of the returns, but in many cases it can hardly be seriously attempted. In several cases the time allotted is only half an hour per week; three-fourths of an hour and one hour are also frequent.

Singing, instrumental music, and carpentry.—It would be interesting and instructive to be able to tabulate the practice of the various schools in the matter of (1) singing and instrumental music; (2) carpentry and other handicraft. It has, however, unfortunately happened that the questions asked on these points were ambiguous, and it is very plain that all the replies are not framed on the same basis. They suffice, however, to show that in these subjects there is an entire lack of uniformity. Some schools teach all of them as part of the regular curriculum; others teach none of them at all. * * *

No credit whatever is given by the public schools to knowledge of these subjects. It is therefore necessary for them to be treated as supplementary to the regular time-table. The fact that they appear there at all is due solely to the importance attached to them by preparatory school headmasters and by the parents, who in many cases pay an extra fee for their sons' instruction in these matters.

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[a] The term English is generally used among us to include language, grammar, geography, history, and dictation.

Rugby School—Statistics of Trinity term ending July 31, 1901—Continued.

CLASSICAL—Continued.

Form.	Upper middle II.		Lower middle I.		Lower middle II.	Lower school.
Number of boys	29	29	25	26	17	10
Average age	15 years 5 months.	15 years 5 months.	15 years 1 month.	15 years 2 months.	14 years 11 months.	14 years 4 months.
Average time in form	1¾ terms..	1¾ terms..	2 terms...	2 terms...	1¾ terms.....	1¾ terms.
Books read.						
Greek prose, or (modern) French.	Xenophon Anabasis, VII, 1-4.		Xenophon Anabasis, V (part).		Morice's Attic Greek stories.	Rivington's Greek Reader, second term book, I.
Greek verse, or (modern) German.	.....		.....		.....	.....
Latin prose	Cæsar Bell. Gall., II, 23 to end.		Cæsar Bell. Gall., I (part).		Cæsar Bell. Gall., IV, V.	Rivington's Latin Reader, fourth term book, III.
Latin verse	Taylor's Ovid Selections, XIV-XVI.		Ovid Selections 50-53 and 1-3 (Heatley and Turner).		.....	.....
English subject	Oman's Greece, 33 to end; Twelfth Night.		Gareth and Lynette...		Tennyson's Gareth and Lynette.	Tennyson's Gareth and Lynette.
Tutor subject	.....		.....		.....	.....

MODERN.

Form.	VI, XX, V.	Lower fifth.	Army class.	
			Upper division, VI, XX, V.	Lower division, V, V 2; upper middle I.
Number of boys	25	26	23	28
Average age	17 years.....	16 years 8 months.	16 years 11 months	16 years 3 months.
Average time in form	2¼ terms	2¼ terms	1¾ terms	2¼ terms.
Books read.				
Greek prose, or (modern) French.	1. Ponsard, l'Honneur and l'Argent; About, Le Roi des Montagnes.	L'Abbé Daniel (Theuriet).	1. Pelissier's Unseens; 2. Gasc. Prosateurs Contemporains.	1. Le Roi des Montagnes; 2. Murat and selections.
Greek verse, or (modern) German.	1. Schiller, Braut von Messina; Heine, Die Harzreise; 2. Goethe, Italienische Reise.	Townson's Easy German Stories.	1. Selections; 2. Lechner, passages for translation.	1. Selections; 2. Lechner, passages for translation.
Latin prose	.....	Selections from Cicero (Walford).	1. Livy, XXIII, continued; 2. Selections.	1. Livy, XXII, 23-40; 2. Siege of Syracuse continued.
Latin verse	Aeneid, V	.....	1. Horace, Selections from Epistles and Satires; 2. Selections.	1. Ovid Fasti, VI, 500-end; 2. Ovid Fasti, III.
English subject	Hamlet; Burke, Reflections on the French Revolution.	English History, Henry III-Henry VIII.	Skery, Précis	Macaulay, Warren Hastings.
Tutor subject	.....	.....	.....	.....

(*e*) For the committing to memory by the scholars of pieces of poetry of literary merit. This shall be a regularly recurring exercise provided for in the time-table, but no set number of lines is prescribed.

5. The scheme of instruction shall further and principally make provision for the instruction of the scholars in the three subjects of reading, writing and arithmetic, according to the degree of advancement suitable to the capacity of each scholar.

6. The scheme of instruction for the junior division shall in addition make provision for the following:

(*a*) Nature knowledge (object lessons)—the acquisition by the children, by means of observation and inquiry, of a knowledge of common objects, natural phenomena, and the surroundings of the school.

(*b*) Practice in speaking English, based upon the preceding and upon the lessons of the reading book.

(*c*) First notions of geography.

7. In the senior division, instruction in the foregoing subjects shall be continued and amplified as follows:

(*a*) Nature knowledge—direct experimental knowledge of the standards of measure and weight,[a] practice in applying them, in representing them to scale, and in making simple calculations resulting therefrom; some acquaintance with the natural features, the plant life, the industries, and the productions of the district.

(*b*) English—practice in describing, orally and in writing, actual observations and experiences, and in reproducing the substance of a reading lesson studied beforehand; some knowledge of the structure of English sentences, of the functions of words, and of the related meaning of words from the same root.

(*c*) Geography—the elements of physical geography. An outline knowledge of the main divisions of the world, with a more detailed knowledge of Europe and a further study of the British Isles and of the colonies.

(*d*) There shall also be added some knowledge of British history, advancing from an outline knowledge of the main periods to a more detailed study year by year. One of the reading books in use in the senior division must be a manual of history, suitable for use as a reading book in that division of the school.

(*b*) HIGHER-GRADE SCHOOLS, CODE 1903, ARTICLES 138–140.

Where a special staff of duly qualified teachers is provided for the instruction of pupils at the rate of 1 for every 30 or fewer pupils on the roll, and where a well-defined course of instruction, approved by the department and extending over not less than three years, is given, such school or department may be recognized as a higher-grade school or department.

Such schools or departments may give an education which is either predominantly scientific and technical—higher-grade (science) schools, or predominantly commercial—higher-grade (commercial) schools, or they may give a course which is recognized by the department as specially suited to girls or to special classes of pupils.

In all cases the department must be satisfied that the school possesses the proper provision of class rooms, laboratories, and workshops necessary for the particular type of education to be given therein.

In circumstances approved by the department a higher-grade school may be recognized as giving alternative courses (two or more), provided that there is a supply of qualified teachers for each course; that the organization of the school is not unduly complicated, and that, as a rule, pupils follow out the course with which they begin.

In all higher-grade schools of whatever kind, the curriculum must embrace the subjects of English, history, geography, higher arithmetic, and drawing, and the instruction in these subjects must follow prescribed lines.

Pupils following the higher-grade science course must take in addition the following subjects: Mathematics, experimental science, and as a rule some form of manual work.

Pupils following the higher-grade commercial course must as a rule take, in addition to the subjects named in the first paragraph above, one or more modern languages, bookkeeping, shorthand, and knowledge of commercial products. The study of arithmetic, of history, and of geography in this course should have a commercial application, and the teaching of a modern language should have for its object the attainment of ability to speak as well as to read and write the language.

[a] For this purpose simple balances and examples of the common standard weights and measur ald be provided, and should be made available for the use of the children.

Attendance at universities of Great Britain, 1889–1900—Continued.

Universities and university colleges.	Students.				
	1897.	1898.	1899.	1900.	1901.
GREAT BRITAIN.					
England and Wales:					
Oxford (23 colleges)	3,408	3,412	3,446	3,499	3,481
Cambridge (19 colleges)	2,929	3,019	3,016	2,985	2,958
Durham (1 college)	171	174	170	170	590
London	.....	.....	.....	.....	6,889
Victoria (3 colleges)	.....	.....	.....	.....	2,404
Birmingham	.....	.....	.....	.....	677
University of Wales (3 colleges)	.....	.....	.....	.....	1,428
University colleges	[a] 13,411	10,133	11,301	10,789	[b] 4,131
University colleges for Women (4)	393	406	400	427	417
Bedford College for Women	192	223	170	183	.....
Royal Holloway College for Women [c]	.....	110	110	120	.....
Technical: City and Guilds of London (4 institutions) [c]	.....	1,515	1,592	1,592	.....
Scotland:					
Aberdeen (1 college)	755	749	765	732	756
Edinburgh (1 college)	2,812	2,813	2,848	2,754	2,929
Glasgow (1 college)	1,789	1,918	2,010	2,016	2,013
St. Andrews (2 colleges)	236	254	261	264	419
Dundee University College	175	160	116	120	.....
Glasgow (Technical) College	286	260	268	298	298
IRELAND.					
Dublin University (1 college)	1,100	1,084	1,100	1,100	976
Belfast Queen's College	343	343	311	311	359
Cork Queen's College	206	187	188	188	171
Galway Queen's College	105	91	91	91	97

[a] The unusually high attendance this year seems due to excess of evening students.
[b] Of some 18 colleges formerly comprised under the head of university colleges all but 4 are comprised in the statistics of the following university organizations: London, Victoria, and Birmingham.
[c] Included in London University.

UNIVERSITY NOTES.

The extension of the sphere of university influence and activity is one of the most significant facts in the recent educational history of Great Britain. Oxford and Cambridge, as already stated, have come into closer relation with the great body of secondary schools in the country by the system of local and of school examinations.

The work technically known as university extension is maintained by Oxford and Cambridge and by London University and has developed under their auspices many features of peculiar interest.

An important meeting of Congregation of Oxford University was held November 11 (current year) to consider the following resolution, proposed on behalf of the Hebdomadal Council: "That candidates shall not be required to offer both Greek and Latin in the examination in stated subjects in responsions." After prolonged discussion the resolution was rejected by a vote of 189 to 168.

The year was made memorable at this university by the celebration (October 9) of the tercentenary of the Bodleian Library. An extended account of this venerable institution is given in chapter 24 of this Report.

The University of London has been reorganized in accordance with the statutes and regulations drawn up by the royal commission appointed under the "University of London acts," 1898. Under these statutes, which received the royal assent June 29, 1900, the university undertakes teaching functions in addition to the examination work which was formerly its exclusive function.

The schools of the university as named in the statutes are as follows:

(1) University College and King's College (admitting women in all the faculties), (2) the 10 medical schools, (3) the 6 theological colleges, (4) the Royal College of Science and the Southeastern Agricultural College (in agriculture only), (5) the City and Guilds Institute (in engineering), (6) the London College of Economics, (7) the

pool (1881), are comprised in Victoria University, incorporated in 1880. The three colleges of Wales—Aberystwyth, Bangor, and Cardiff—pertain to the University of Wales, incorporated in 1893, and Mason College, Birmingham, is the nucleus of Birmingham University, incorporated 1900. The development has been stimulated also by a Parliamentary grant which has been appropriated annually since 1889 to be shared by the university colleges of England on the condition that they submit reports to the education department.

The grant, which began at £15,000, was raised to £25,000 in 1897. Upon similar terms the three university colleges of Wales receive each annually £4,000 from the treasury.

Owens College, the oldest of these modern foundations, celebrated its jubilee with imposing ceremonies March 12 and 13 of the current year.

The question of chief moment during the year in respect to the Scotch universities has been that of the reorganization of their curricula to meet modern demands. For this purpose additional resources are greatly needed. To Glascow University belongs the credit for initiating the first concerted steps toward a new reform. The report of a conference of the Glasgow faculty on extra summer term was forwarded to the arts faculty in Edinburgh. The latter concluded that it would be best to discuss the whole question of the arts curriculum and not merely the single issue—the extension of the academic year. At the request of the senate, Professor Chrystal, dean of the faculty of arts, undertook the task of preparing a public report of the proceedings and of the conclusions arrived at.

The report, which is regarded as a most important document, is thus summarized in the School World, October, 1902.

DEFECTS OF THE PRESENT CURRICULUM.

(1) One of the main defects is that the work of the students is compressed into too short a period of the year. The student sits day by day in the lecture room, and a series of pictures are thrown on his mind, like lantern views on a screen, each vanishing before it has had time to fix the attention. Lectures to be effective must be broken and assisted by exercises, by recitations, by reading, by reflection, by revisal, all done by the student himself, and also supplemented in varying degrees according to the subject by tutorial instruction.

(2) The great variety of the subjects of the ordinary degree, their want of corelation, and the possibility of taking each of them separately, encourage the student to skim over each as rapidly as possible, and to dismiss each successively from his mind.

(3) The strain of the high-pressure work of the winter session tests to breaking point in many instances the health of both students and professors.

PROPOSED ALTERATIONS IN THE ARTS CURRICULUM.

(1) It should be made possible to extend the courses that qualify for the degree of M. A. over a longer portion of the year, say from October 1 to June 30.

(2) In the interest of students who are willing and able to do sustained work on particular subjects, some concentration should be allowed with a corresponding degree of relief from the compulsions of the present curriculum for the ordinary degree of M. A.

(3) A greater variety of honors groups should be recognized, and graduation i honors in more than one group fostered by greater exemption from subjects take on the ordinary standard.

(4) To economize the energy of the students and give a higher tone to their cl work, the example of the American universities and of the new Birmingham U versity should be followed of allowing class work to count in part for graduati under such limitations as may be thought desirable to prevent possible abuse.

(5) To provide for the greater length of the courses, and to indemnify the univ sity for the loss of fees caused by the abolition of the present summer classes increased fee might justifiably be charged.

The royal commission on the state of university education in Ireland, appointed in 1901, has just issued its report, which is received too late for extended consideration in this place. The representative character of the commission, the thoroughness of its investigations, and the comprehensive scope and judicial tone of its report excite the hope that its recommendation will lead to a satisfactory settlement of the serious problem which has engaged its attention.

An interesting event in the year's history of Trinity College, Dublin, was the opening ceremony of the memorial building, the gift of old graduates in commemoration of the tercentenary feast of 1892.

The following statements with regard to private bequests for higher education in Great Britain during the period 1871–1890 and the comparative statistics of university students in Great Britain, Germany, and the United States are cited from a recent article in Nature:

The question naturally presents itself, What has been done by private effort in this country to assist university education during the same period (1871–1890)? Compared with American munificence, the amounts given and bequeathed here are very small. Take, in the first place, the university colleges, which are largely to be regarded as a growth of the years under consideration. The financial statements contained in the Reports from University Colleges, 1901, published by the board of education, reveal the fact that, including the £400,000 raised for the University of Birmingham, the benefactions to the fifteen university colleges in Great Britain amounted during 1870–1900 to a little more than three millions ($15,000,000). In the absence of systematic reports during the same period of the financial resources of the older universities of the United Kingdom, it is difficult to estimate the amount of benefactions received by them during the same thirty years. The parliamentary returns which have been published since 1898, showing the revenue of Scottish universities, suggest that their benefactions in the same time, excluding Mr. Carnegie's splendid gift, may be put at something under half a million, so that for the whole of the United Kingdom the total amount of endowment from private sources raised in these years may, without any risk of underestimation, be said to be considerably less than five millions ($25,000,000). * * *

It is interesting in this connection to compare the number of students taking university courses in this country with those in Germany and the United States. With this object in view the following table has been prepared, but it should be pointed out that the number of students in our university colleges includes all above the age of 16, which is probably much lower than the age of the students included in the totals for other countries. It is well to remember, too, that the number of American university students is probably too high for a fair comparison with those of Germany. Many university students in the United States are really students in the higher branches of technology, and would in Germany study in technical high schools, the students of which are not included in Germany's total in the table. To make the comparisons as simple as possible, the number of university students per ten thousand of population has been calculated.

Number of university students per 10,000 of population (1900).

Country.	Population.	Number of students.		Per 10,000.
		Day.	Evening.	
United Kingdom	41,164,000	[a] 12,000 [b] 8,500	 5,000	[c] 4.98
German Empire	56,367,000	44,400		7.87
United States	76,086,000	97,100		12.76

[a] Universities. [b] University colleges. [c] Excluding evening students.

Neglecting the income accruing from the State land grants, the legislatures of individual States and the United States Government together supplied about £900,000 for university education during 1899–1900, while the article in Nature for March 12, 1903, shows that the total State aid to universities and colleges in the United Kingdom at present amounts only to £155,600.[a]

[a] From article entitled "The university and the modern state," Nature, May 14, 1903, p. 27.

in these volumes, you will bestow upon them as much time as you can; and you can bestow as much as you wish. But when I shall understand that you take delight in this department of science, then will I converse with you both when present, which will be in a short time, as I expect, and while you will be far away I will talk with you, though absent.

It is evident, therefore, that in De Officiis is a genuine specimen of correspondence instruction of the highest type—so high, in fact, that those letters written by the Roman orator nearly two thousand years ago are still studied for their style and for their contents in the colleges of the world. They were truly "the noblest present ever made by a parent to a child."

Lord Chesterfield, too, was a correspondence instructor of note. His Letters to his Son are not in "pedagogical form," and as far as any necessary dependence of the substance of one upon that of another is concerned, any one of them might as well be the last of the series.

They are informal, as might be expected of the familiar letters of a parent to a child; beyond occasional advice they deal but little with formal study, and were not designed to be themselves the subject of such study, as were Cicero's letters. They were intended principally to convey directions, or suggestions, as to conduct, using the word in its lighter meaning. A tutor was employed to teach the scholastic branches, but instruction as to the behavior of a gentleman in his association with his fellows could only be given by one of particularly refined manners. It was this which Lord Chesterfield undertook to do for his son, and since the two were together but little, the instruction necessarily took the form of correspondence.

The next important writer of didactic letters who will be noticed here was Karl Philipp Moritz, a German teacher, author, and journalist. He was connected with Basedow's famous "Philanthropin," and was later a friend and protégé of Goethe. He wrote a book upon German prosody, putting it in the form of letters which were supposed to have passed between two imaginary persons, Euphem and Arist. The contents of the book indicate that this form of composition was merely a conceit of the author, and that the substance was never actually transmitted as a series of letters. But this paper would not be complete without mentioning it, because it was one of the works which suggested the idea of correspondence instruction upon an extensive scale to the Germans, who founded the first of the modern correspondence schools.

For the same reason it is necessary to mention William Cobbett, who was famous as an agitator and pamphleteer in this country as well as in England a hundred years ago. It was in 1817, during one of his sojourns in America, that Cobbett wrote to his son, James Paul, a series of letters which together formed a complete grammar of the English language. Just why he happened to select such a subject for these letters is interesting. He had been a plowboy in his youth, and had had little opportunity for early education. Reaching manhood he enlisted in a regiment of infantry with which he came to Halifax. Having been made regimental clerk, he felt sadly the lack of education and eagerly set about to make up the deficiency. One of the first books he secured was A Short Introduction to English Grammar, by Bishop Robert Louth, a little duodecimo book of 220 pages. With the enthusiasm of a novice he studied this until he thoroughly mastered every part of it, and even committed the entire book to memory. This gave direction to his subsequent studies and bent to his mind, and it is not surprising that, in writing to his absent son, he should take that topic which he had found so fruitful.

Having written these letters, which were really letters, though forming as a whole a remarkably clear and connected treatise upon the language, he followed his habit and published them in book form. The title-page stated that the book was "intended for the use of schools and of young persons in general, but more especially for the use of soldiers, sailors, apprentices, and plough-boys." The success of the publication

The "language letters," as they were called, were prepared with great care, native teachers of two nationalities cooperating to avoid possibility of error, and every effort was made to present the lessons not only with the utmost clearness, but with absolute correctness. The success of the system was remarkable, and it was widely commended and repeatedly imitated. At least once (in 1865) an unauthorized edition of the letters was published in this country, but it met with no success, for even with the text of the letters accurately copied there was still lacking the vital part of the instruction, namely, examination of the pupils' work and suggestions by the living teachers.

In this country correspondence schools have come into being and have grown in such a way as to make it probable that we should have had them even if there had never been a Toussaint-Langenscheidt method. Certainly the early conscious imitations, more or less fraudulent, came to naught, like the edition of the letters in 1865, and never had any influence in leading to the development which we have seen in the last twenty years. Without doubt the men who took up and popularized the correspondence work in the United States were well acquainted with what had been done by the Germans, and they used many of the ideas which had proved fruitful abroad, but they did not set out with the determination to establish a correspondence school. It was practically forced upon them, and its perfection came through natural development and in a remarkable and interesting way.

It was from the Methodist camp meeting that the American correspondence school grew, and it may be profitable to trace the steps which led to the transition.

"Camp meetings" are said to have originated in the sparsely settled regions of Kentucky during the closing years of the eighteenth century. A religious revival conducted by two traveling preachers on the Red River was so successful that the crowds attracted became too great to be accommodated by any building in the settlement, and the meetings were held out of doors. People attended from far and near, and many of those who came from a distance remained for several days, living in tents, no other accommodations being available. After the initial successful meeting, others were held on the same plan, the camping feature being more pronounced. In time, camp meetings became common, and are still a favorite mode of worship in the rural portions of the South and West, and, to a less extent, in the East. Certain localities are specially favored as "camp-meeting grounds," and are utilized for years in succession, until they attain considerable local celebrity. It is not unusual for the attendance upon them to reach several thousand, most of those present living during the week or two of the continuance of the meeting in tents or temporary buildings.

Such a place was Fair Point, N. Y., upon Chautauqua Lake. For several years the Methodists of the Erie Conference had held a camp meeting there, its exercises differing presumably in no essential particular from those of other camp meetings all over the country. To the meeting of 1873 came Rev. J. H. Vincent and Mr. Lewis Miller, the one an enthusiastic Sunday-school worker, full of energy and of ideas, and the other a substantial manufacturer of agricultural machinery, interested in educational and religious work. These men were imbued with an idea, first advanced by Mr. Silas Farmer in 1870, of a Sunday-school institute upon the camp-meeting plan, and Fair Point seemed to them the ideal place for its initiation.

The managers of the Chautauqua Camp Meeting Association readily fell in with their plans, and in due time "The Sunday-School Teachers' Assembly" was instituted, the first meeting being held in 1874. The idea at first was the normal training of Sunday-school teachers only, the intention being "to utilize the general demand for summer rest by uniting daily study with healthful recreation, and thus render the occasion one of pleasure and instruction combined." Though begun under the auspices of the Methodist Episcopal Church the assembly broke away from strict denominational lines soon after its organization, the similarity of the

Under the new arrangements correspondence instruction proved successful. The teachers took renewed interest in the work and set about devising other plans to make it attractive, while the pupils generally found that they could make good advancement and persevered in their tasks with commendable zeal.

The plan of operations, as worked out for the teaching of French, was thus stated in the Chautauqua Assembly Herald of August 8, 1882:

To assist students of the French language to overcome the idiomatic and other difficulties of interpretation, as well as to acquire general facility in French, it is proposed to organize a French Circle, for regular and systematic home study, to be directed through the mail by Professor Lalande.

A free and full use of the French language involves, (1) the art of reading; (2) the art of hearing; (3) the art of speaking; (4) the art of writing. The first and last of these, that may be called sub-arts, are peculiarly suitable for home study. The hearing and the speaking should constitute the main business of the sessions of the school at Chautauqua. At the outset of the study there are difficulties to be overcome that oral instruction only can properly meet, and when the student has gained the ability to read French readily, he must hear the language spoken to cultivate his ear before he can make any profitable advance toward speaking it. Oral instruction is thus valuable at the commencement of the study, and indispensable at a later stage, but there is a large intermediary space in which the proposed circle may be most profitably employed. To this end it is intended to furnish by mail, weekly, to each member, certain exercises comprising a definite amount of reading, translating, and idiomatic and grammatic expounding, to be performed by the member, and mailed to the professor, at Louisville, Ky. These exercises will be corrected by Professor Lalande and returned to the student, with notes and suggestions adapted to his individual needs. The course of exercises will begin October 1 and end May 31. This series of graduated exercises will carry the student over all the important difficulties in the language, the required reading, etc., will insure to the faithful student such attainments in the French language as will fit him to profit fully thereafter by the most advanced instruction in class or under a living teacher. Terms of membership, $1 per month, to be remitted to Prof. A. Lalande, Louisville, Ky., with the first exercise of each month.

This appears to have been the first complete plan developed and formally announced in this country for correspondence work. It found favor in the eyes of Dr. Vincent, the real head of all of Chautauqua's undertakings, and was apparently the plan followed in teaching the other languages offered at Chautauqua.

It will be seen that, though bearing Chautauqua's name, the correspondence work was really in the hands of the individual instructors, who conducted the correspondence and received all the fees. There was no unity of action or organization and each teacher was a law unto himself, for the officers of the assembly exercised no supervision over the work.

It is one of the characteristics of the Chautauqua management that an idea shown to be good is at once seized upon and its application extended to the utmost limit. When correspondence instruction, therefore, was shown to be practicable in the teaching of languages, arrangements were almost immediately begun to apply the same plan to other studies.

A "School of Theology" had been established in 1881, in which a course of home study had been mapped out, for the completion of which degrees were promised. From time to time special papers on various topics were sent to the young ministers embracing lectures on law, hygiene, syllabi of important articles in magazines, etc There was some correspondence, probably between the heads of the departmen and students, but it was desultory and purely informal, and the degrees we expected to be awarded on examination only. The successful correspondence wo in the School of Languages stimulated the School of Theology to like action, and t advertisements and announcements of the latter soon began to mention correspo ence as a feature of its work.

More important still, the long-cherished plan of a Chautauqua University, to be crowning glory of the Chautauqua system, received strong impetus when a met

full courses in biological science. The student will not be required to pursue these courses exactly as prescribed, as wide opportunity will be given to the individual to substitute other branches than those named, or more courses in particular departments than are here specified, as he may elect. But in every case full courses equal in number to those specified will be required. For the other degrees the scheme of study now pursued will form the basis, such omission and substitution being made as are suited to the particular degree; but in no case will a diploma be given for less than 22 courses.

In all the circulars and announcements of the University great stress was laid upon the fact that it presented no easy road to a degree, and that the work required was as much as would be demanded by a residence college for the same recognition. All intention of trespassing upon the field of the regular institutions was repeatedly disclaimed, and students who could do so were urged to attend college in person in the usual way. Justification of the existence of Chautauqua University was found in the numbers of earnest students to whom it was impossible to leave home, and whose studies were necessarily without proper direction.

In 1885, by a new act of the State legislature, Chautauqua University was extended to include all the educational agencies of the Chautauqua Assembly, and the term "College of Liberal Arts" was thereafter applied to what had previously been known as the University. As such it flourished educationally, though not financially, for about fifteen years, bearing on its rolls upward of 300 students a year and numbering among its professors some of the best-known specialists in the country. Its faculty in 1890 was composed as follows: William R. Harper, then of Yale University, principal; James J. Robinson, Ph. D., Latin; William E. Waters, Ph. D., Greek; Herman J. Schmilz, M. A., German; A. de Rougemont, M. A., French; W. D. McClintock, M. A., English; E. H. Moore, Ph. D., mathematics; E. H. Hershey Sneath, Ph. D., mental and moral science; Richard T. Ely, Ph. D., political economy; Herbert B. Adams, Ph. D., history; Le Roy F. Griffin, M. A., physical science; Frederick Starr, Ph. D., geology and physical science. Truly no other college of 300 students in the country could boast a stronger faculty or one containing more distinguished names.

Besides the usual academic work of a college there was in connection with the institution a preparatory department, a school of journalism under Mr. Hamilton W. Mabie, and a school of phonography, at first under the direction of Prof. William D. Bridge.

Then, as parts of Chautauqua University, though apparently independent of the College of Liberal Arts, there were the School of Theology, which I have already mentioned, the School of Business under Mr. Charles R. Wells as director, and the Society of Fine Arts, of which Mr. Frank Fowler and Miss Jeannette L. Gilder were the director and conductor, respectively. In all these correspondence was the medium of instruction employed during the greater part of the year. Classes in all of them were organized at Chautauqua during the period of the assembly, and students were expected to come as much as possible in personal contact with the teachers during that time. Many of the correspondence students undoubtedly did attend the summer classes, but it is not to be supposed that any considerable number of those who lived in distant States did so, for persons who were not able to attend a residence college would scarcely be able to take a long and expensive summer trip for the sake of six weeks' instruction.

The fees paid in the College of Liberal Arts (namely, $5 matriculation fee and $10 for each course) were never sufficient to pay the cost of maintenance. Each year a deficit was reported which was paid from the general funds of the assembly, entailing a heavy drain upon the revenues from its more profitable enterprises. Nevertheless the college was maintained unimpaired until 1900, when in the general reorganization of the assembly's affairs all the correspondence work was dropped, thus ending an exceedingly interesting and important chapter in America's educational history.

work, and the work done by the Chautauqua professors must be classed as pure philanthropy, and may be likened to gratuitous practice of famous physicians in the hospitals.

Not only do the stock-company schools charge more for their courses, but they have also arranged systematic methods by which the great bulk of the examination and correction of students' work is done by clerks and subordinates, to whom small salaries are paid. These people work under the direction of experienced men, and the text-books studied and questions to be answered by students are prepared by competent experts. Naturally the instruction given by clerks, even under supervision, is not altogether such as it would be under college professors, but the system is "businesslike" and in the best of these schools it is fairly efficient and satisfactory to patrons.

But the most marked difference between the colleges and the stock-company schools lies in the energetic "hustling for students" by the latter class, to use the words of the manager of one of them. Certain questions of scholarly dignity and professional ethics which might influence and restrain a college professor are not regarded by the "business men" at the head of the schools. Extensive advertising of the most alluring and optimistic sort is supplemented by organized systems of branch offices in the principal cities, and by an army of solicitors who cover the country very much in the same way that book agents and insurance solicitors do.

The operations of one of the largest and apparently most flourishing of its class may be cited as illustrating the methods which seem to be common to all of them. The advertising matter of this institution appears extensively in all the principal magazines and periodicals, and it has over twenty branch offices and employs regularly a force of 2,500 persons in all its departments. Over 350,000 students were enrolled in the first ten years of its existence, but for actual instruction only 26 "principals," with a total of 358 "experts, instructors, and assistants" were required in 1902. Thus it will be seen that the greater part of the receipts from tuition go for securing and retaining students, rather than for instructing them. The reverse is true of the colleges, for in them practically all the fees for the correspondence work go to the professors; very little is paid for advertising, and nothing at all to canvassers.

As to the actual extent of correspondence instruction it is difficult to make a satisfactory statement. The conditions of enrollment in the stock-company schools are such that it is impossible to state at any one time how many students are actually studying and how many have finally dropped their work. A pupil may usually take as long as he wishes to complete his course, though some schools limit the time in certain lines to five years. A name once enrolled is therefore continued on the lists indefinitely. Some students drop their studies for long intervals and resume them after months and even years of inaction. Others may send in a paper only about once in six months, but they are still rated as students as long as any lessons paid for have not been taken. Of course the great majority of those who lose interest in their work for a few months, or even weeks, will not be heard from again, but that can not be assumed for any particular case. The managers of the schools themselves therefore do not know definitely how many active students they have, and when asked for estimates usually refuse to make them or else give the whole number enrolled from the beginning of the school. In the University of Chicago a course lapses if not completed in a year, and, as ample records are kept, it is easy to determine the number actively at work at any given time. This, however, is not generally the case.

The numbers which are reported in connection with these schools are undoubtedly impressive. With one of the schools claiming over 350,000 students, the claims of the rest must be set in proportion, and the institution which can not refer to at least 10,000 is small indeed. But as representing present conditions these figures are wholly misleading for the reasons described. If the numbers usually given to the public be

efficiency. But it is difficult to understand how such a course can be of material benefit, to say nothing of its ability to develop first-class illustrators, as the statements to prospective students seem to imply.

There are several correspondence schools of music which are advertised more or less extensively, and which claim to have many students. Undoubtedly there is much in the science of music that can be taught by mail as easily as any other subject can be taught by that method, and there are teachers of high reputation engaged in such instruction; but to teach the art, as distinguished from the science, in that way is quite another matter. It would certainly be difficult to accomplish it satisfactorily.

These instances represent the darker side of the picture, and they arise from the condition of affairs that exists in this country which makes it possible for a man to undertake any business he wishes so long as he does not actually violate the ordinary criminal laws. There is no supervision whatever on the part of any public officer over the work of correspondence schools. In most States they may with apparent ease even secure charters enabling them to grant degrees without restriction. It must be said that in very few instances does there seem to be a conscious disposition to abuse this power, yet the mere fact that degrees are given by many schools for work done wholly in absentia, and upon examinations at the pupils' homes under supervision that is plainly insufficient to insure honesty, is in itself suspicious.

Yet the fact remains that a very great work has been done and is being done by correspondence schools. Even inferior ones, with all their shortcomings, have been the means of good. True, they have discouraged many, but they have prompted others to seek instruction who have subsequently pursued their studies under more favorable auspices. The very fact that the watchword of all of them is "improve yourself," and that they constantly stimulate their patrons to study, is not to be overlooked. Then, when we consider the thousands to whom the better class of these schools have carried the means of improvement, and reflect that without the aggressive tactics of these enterprising "hustlers" the great majority of their students would have remained without any instruction at all, we can understand their value as a force in popular education. The stock-company schools have done for education a work in some degree similar to that of John Wesley and William Booth in the cause of religion. Their methods are startling to the conservative, but the sum total of their efforts have made for the good of mankind.

In regard to the achievements of institutions still higher in the category, namely, the Chautauqua College of Liberal Arts, the University of Chicago, Pennsylvania State College, and the like, nothing but good may be said. They have carried the higher education to thousands to whom college walls were but a dream. The figures of the correspondence work of those institutions speak for themselves.

TYPICAL SCHOOLS AND COURSES OF STUDY.

THE UNIVERSITY OF CHICAGO, CORRESPONDENCE-STUDY DEPARTMENT.

[From a letter of Mr. Hervey F. Mallory, secretary, November 4, 1902.]

Our correspondence work differs radically from that conducted by schools offering instruction in a certain group of studies and calling that group a course. We do nothing of this kind, but simply offer a list of perhaps 250 different "courses," as we call them—that is, units of study—and allow anyone, anywhere, who feels qualified to do the work in any particular course or unit to take it on payment of the fees and compliance with general university admission requirements. This course or unit we denominate a major. It represents the amount of ground which a student in residence would be taken over in twelve weeks, averaging five hours of recitation per

[From the University Record, August, 1902, p. 160.]

Statistics of instruction, registration, and credit July 1, 1901, to June 30, 1902.

Department.	Instruction.		Registration.			Credit given.	
	Instructors.	Majors.	Men.	Women.	Total.	Registrations completed.	University credit given.
IA. Philosophy	5	6	25	19	44	14	3
IB. Education	10	10½	35	35	70	18	3
II. Political economy	2	4½	18	4	22	6	1
III. Political science	1	4	11	6	17	6	.....
IV. History	7	16½	56	72	128	50	17
VI. Sociology and anthropology	9	13	14	12	26	12	9
VII. Comparative religion	2	1	2	2	4	1	.....
VIII. Semitic languages and literatures.	2	3	35	3	38	15	.....
IX. Biblical and patristic Greek	4	5	37	16	53	9	1
XI. Greek language and literature	4	9½	12	16	28	10	2
XII. Latin language and literature	4	21	34	101	135	44	26
XIII. Romance languages and literatures	7	14	25	65	90	30	11
XIV. Germanic languages and literatures	8	9½	32	62	94	30	23
XV. English language and literature and rhetoric	12	25½	137	344	481	111	39
XVII. Mathematics	4	23	53	41	94	30	3
XVIII. Astronomy	1	2	3	1	4	1	.....
XXI. Geology	2	1	7	4	11	2	.....
XXII. Zoology	3	2	6	1	7	.....	2
XXVII. Botany	5	8	34	33	67	25	18
XXVIII. Pathology and bacteriology	1	3	2	2	4	3	.....
XLI. Old Testament literature and interpretation	3	3	3	1	4	.....	.....
XLII. New Testament literature and interpretation	1	2½	6	6	12	4	.....
XLIV. Systematic theology	1	1	2	1	3	1	.....
XLV. Church history	2	4	8	.....	8	3	3
XLVI. Homiletics	2	2	17	1	18	5	2
Library science	1	1	6	17	23	8	.....
Total	[a]103	195½	620	865	1,485	438	[b]163

[a] Total number of different instructors was 94. Nine gave instruction in two departments.
[b] Final examination was passed on 41 other courses by students who will be duly credited with the same as soon as they have gained a record of residence work.

Summary of registration, by years, October 1, 1892 (date of organization), to June 30, 1902, inclusive.

	1892–1893.	1893–1894.	1894–1895.	1895–1896.	1896–1897.	1897–1898.	1898–1899.	1899–1900.	1900–1901.	1901–1902.
Holding over	.....	85	139	220	284	412	488	472	540	673
New registrations	.....	124	172	261	355	469	522	676	753	799
Lapsed courses renewed	.....	.....	.....	.....	.....	.....	5	10	18	13
Total registration	93	209	311	481	641	881	1,015	1,158	1,311	1,485
Registrations completed	4	38	63	106	127	182	282	336	392	438
Registrations dropped	4	32	28	89	102	211	261	282	246	339

[From pamphlet on correspondence instruction, Chicago University, 1900.]

SOME OPINIONS OF INSTRUCTORS, UNIVERSITY OF CHICAGO.

President William Rainey Harper: I have myself been personally interested in the correspondence work for twenty years, and have seen the system work for that period of time. The correspondence method of study is not intended for all men and women; it is intended for those who have the ability—the backbone—to work without the constant prodding of a teacher. Half the students in a university need the constant attention of the teacher day by day. It is the best class of students who do work by correspondence. It is without doubt true that in linguistics (I draw my illustrations from the department with which I am personally connected—Hebrew and the cognate languages) the work done by correspondence is even better than that done in the class room. Students who come to us after a year of such work are

development, and relationships of the groups, which forms the most important part of all three courses, particular attention is given to the development of the plant body and the evolution of sex, problems which could hardly be understood if the student were to begin with more complicated forms. The ease with which these simple forms may be prepared for microscopic examination makes them favorable for those who have not yet learned to use a microscope effectively, while their simple structure makes them suitable objects for the great number of students who have not learned to "draw."

In the course in bryophytes and pteridophytes, which presupposes a knowledge of algæ and fungi, special attention is given to the great problem of alternation of generations, the evolution of the sporophyte, and reduction of the gametophyte. The structures involved in these fundamental problems are clearly shown in critically prepared slides. Heterospory is studied in several forms.

In the gymnosperms and angiosperms some attention is paid to the histological structure of the root, stem, and leaf with a comparison of asymnosperm, monocotyl, and dicotyl characters. Other subjects are the development of the flower, the development of the ovule, the development of pollen and the embryo sac, fertilization and formation of the embryo. The principles of the Engler and Prantl classification are also presented. One exercise is devoted to karyokinesis and cell formation. A comparison of critical structures with homologous structures in the pteridophytes is an important feature of this course.

Two years ago a course, Methods in Plant Histology, preeminently a technical course devoted to fixing, imbedding, sectioning, staining, etc., was offered, and results have shown that even so technical a course as this can be pursued successfully by correspondence.

The subject of botany has made extremely rapid progress in the last decade, so that view points have changed, and even the subject-matter presented in the best secondary schools is changing. By the aid of the correspondence work teachers are able to put themselves in touch with more modern views and methods, benefiting themselves and their pupils at the same time. Many graduate students desire to perfect themselves in some chosen line and thus secure a higher degree. Those who have done their botanical work several years ago usually find that they are not able to undertake advanced work in this subject, so that it is no uncommon thing at the University of Chicago to find an undergraduate class composed largely of graduate students. Some who have had good training in college and have tried to keep up with modern methods have done so much of the fundamental work that they would find much repetition if they should enter the general classes, and since time is precious they hesitate to undertake such work; yet, for the lack of the one-half or one-third of the work which is still unfamiliar, such students, almost without exception, have made conspicuous failures when attempting advanced work. The foundation necessary for advanced courses could have been completed very rapidly by correspondence.

In looking over the large list of those who have taken botany by correspondence it is interesting to note that many have come to the university for more advanced work. Three who have taken the doctor's degree in botany and three of the present candidates for that honor having completed two or more majors by correspondence. But besides those who are teaching botany, the list includes lawyers, artizans, and business men, who, in the midst of their daily occupations, find time to improve their knowledge of a favorite subject.

The courses are so arranged that the necessary books in any single course cost less than $5. The only necessary apparatus is a compound microscope giving a magnification of about 400 diameters.

Besides the courses with which the writer is personally familiar, successful work has been done in the newer field of ecology, and a carefully planned course in plant physiology is now offered. Courses in zoology and bacteriology are being conducted with encouraging results, and a course in physics will be offered after July, 1903.

CAN HISTORY BE SUCCESSFULLY TAUGHT BY CORRESPONDENCE?

[FRANCES KNOX, the University of Chicago.]

The history department of the University of Chicago does not pretend to do research work by correspondence. It offers no graduate courses by this method, not because the method itself is not adapted to such courses, but because of the fact that only in rare cases is the correspondence student able to command the materials requisite for exhaustive work. In the college and preparatory courses, however, the case is different. In these days, when the teacher of any important period of history

Vital capacity		
Audiometer:		
Right		
Left		
Visual acuity:		
Right		
Left		
Motor ability		

The use of cards with one color for the boys and another for the girls allows the quick compilation of the data in any manner desired by changing the grouping of the cards.

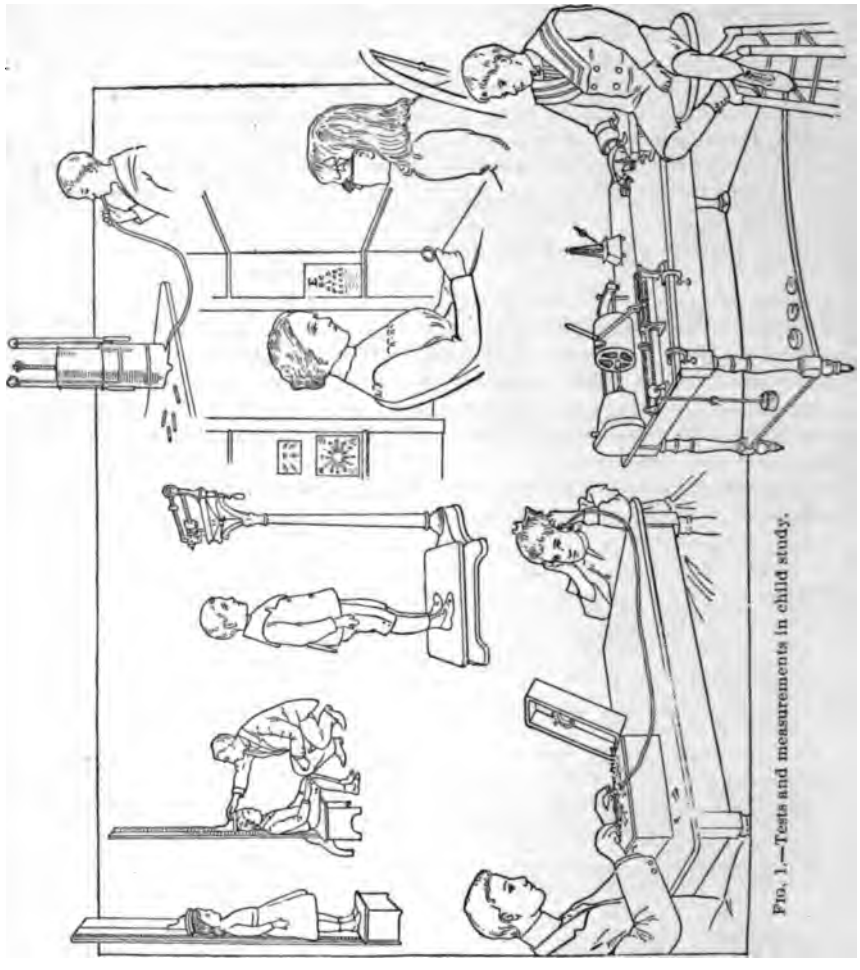


FIG. 1.—Tests and measurements in child study.

THE ESTABLISHMENT OF NORMS.

Up to date, tests have been made on the pupils of the Alcott, Kozminski, Andersen, and Tennyson elementary schools, the eighth grade and the kindergarten in the Hoyne School, the kindergartens of the Burr, Kinzie, and Sheldon schools, and also the pupils of the Englewood and Lake View High schools; in all, 6,259 pupils, 2,788 boys and 3,471 girls. The pupils of these schools are largely of American parentage and are the children of parents in comfortable circumstances, so that they are uni-

with the height when taken without shoes. The results of the compilation of hei standing and height sitting will be found in Table I. It will be noted that t average girl is shorter than the average boy when they enter the kindergarten, l just before reaching 11 years of age, owing to a slackening of the boy's rate of grov and an acceleration of the girl's, the average girl becomes taller than the aver boy and remains taller till they reach the age of 15 years. At this period the g seem to be exhausted in the race, and the boys surpass the girls in height and c tinue to increase the difference in stature for a number of years.

As in height standing so in height sitting. When the pupils enter the kind garten the average boy is slightly taller when seated than the average girl, but j before attaining the age of 11 years the average girl surpasses the average boy height sitting. This again seems due as much to a retardation in the boy's rat growth as to an acceleration in the girl's rate of growth. The average girl contin taller when seated than the average boy till nearly 16 years, or almost a year lon than her height standing exceeds the height standing of the average boy. T shows that the more rapid growth of the boy at this age is chiefly in the lo extremities rather than in the trunk.

GROWTH IN WEIGHT.

As we found in stature so we find in weight that the average boy exceeds t average girl during the early years of school life. During the three years from 12 15 the average girl is heavier than the average boy. Soon after 15 is reached t boy surpasses the girl in weight and he continues to increase in weight more rapi than she does for a number of years. It will be noted that the average girl s passes the average boy in weight at about a year later than her stature exceeds h The tables of weight and height show that the girls continue to increase in weig for a longer period than they increase in height.

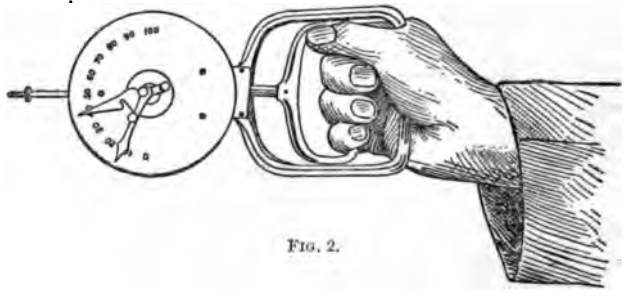


FIG. 2.

THE DEVELOPMENT OF STRENGTH.

Strength of grip was tested at first by an ordinary 2-spring dynamometer, b an attempt to test the young children with this instrument proved that it w entirely unsuited to the size of their hands. Those with the smallest hands we forced to use a different set of phalanges from those which the adult would use c the same instrument. Again, it was found that the adult could make his best reco only when the instrument was suited to the size of this hand. For this reason w were forced to devise a new dynamometer which could be adjusted to the size of th hand. This new adjustable grip dynamometer is represented in fig. 2. It is set b changing the distance between the bars of the inner and outer stirrups. This i accomplished by whirling the inner stirrup, a screw thread passing through a nu below the dial, causing the protrusion or withdrawal of the stem of the stirrup. A distance between the bars corresponding to about one-half of the distance from the

place where the thumb joins the hand, to the end of the fingers, was found best suited to most hands.

Each pupil was given several trials of strength and the best result obtainable was recorded. It will be seen from Table I that the boys surpass the girls in strength at all ages; even in the kindergarten the average boy is stronger in his left hand than the average girl is in her right hand, and during the early years of adolescence this differentiation of the sexes becomes very striking. These facts were shown in Dr. Christopher's report and have been fully confirmed by the compilation from the larger numbers.

DEVELOPMENT OF VITAL CAPACITY.

The term vital capacity is used here to signify the amount of air that a person can expire after a forced inspiration.

Vital capacity was tested by means of a wet spirometer. In this test, as in the test of strength, the child was allowed repeated trials until he fell short of his previous efforts and the best mark attained was recorded. The boys show greater breathing capacity from the first, the difference becoming marked during adolescence. The great breathing capacities of the boys who were in training for football and the girls who played basket ball were in strong contrast with those who took little physical exercise, which suggests that vital capacity increases and decreases with the amount of one's activity, and so, in connection with size, is an index of the rate of metabolism.

THE DEVELOPMENT OF ENDURANCE.

A modification of Mosso's ergograph made possible the study of endurance and fatigue. This instrument gives a graphic record and a measure of the work done under certain fixed conditions by a single group of muscles. The apparatus consists of two parts, a fixing board and a carriage with tracing apparatus mounted on a suitable frame. The arm is fastened firmly to the fixing board, allowing free movement to only the middle finger of the right hand. To this finger a cord is fastened which, passing to the carriage and over a pulley at the end of the stand, is attached to a weight. In each case in these tests this weight was 7 per cent of the weight of the individual. In flexing the finger the weight is lifted and on extending the finger the weight returns to its original place. A pen attached to the carriage and resting upon a kymograph traces the movement thus made upon paper fastened to the revolving cylinder of the kymograph, and a moving tapeline measures the distance which the weight has been lifted. This distance, multiplied by the weight, gives the amount of work done. By keeping time with the beating of a metronome these flexions and extensions of the finger are made at regular intervals, so that in ninety seconds, the time employed in each test, the weight would be lifted 45 times. In operating the ergograph loaded thus with 7 per cent of the gross weight of the individual it was found that at some period between ninety and one hundred and fifty seconds such fatigue was usually produced as to render it impossible to move the weight at all. By limiting the work to ninety seconds a point was reached at which the strongest pupils would begin to show fatigue, and only the weakest and very obese pupils became entirely exhausted. Table I shows the development of endurance, as shown by the power to do work on the ergograph. It appears that boys have greater endurance than girls at all ages, and during adolescence the differentiation of the sexes becomes very striking. The comparison of the records an individual makes in endurance and vital capacity seems to show that they usually develop together.

THE RATE OF ANNUAL INCREASE IN GROWTH AND DEVELOPMENT.

Table IV shows separately for each sex and for each of the physical measurements taken the following points: First, the special measurement under consideration at the

beginning of each year, as shown in the table of exact
the increase in that measurement found at the beginnin
increment during that year. Third, the per cent that this
urement at the beginning of the year during which it has

The per cents of gain in height, weight, strength, end
are represented in Charts I and II. The study of these
some interesting and important considerations. Noting fir

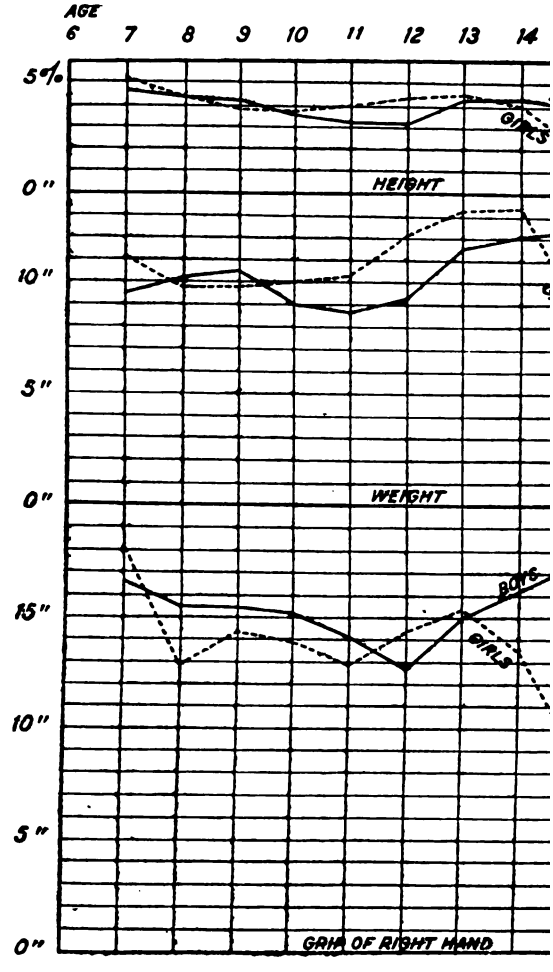


CHART I—Rate of annual increase in stature, weight, an
Based on data in Table IV.

annual rate of gain in height, it is seen that the general tre
is downward. This general trend is broken in both sexes
commences at 10 and ends at 16, and in boys commences a
summits of these rises are from 12 to 14 in girls and from 13
showing the rate of gain in weight shows a similar rise in
at the same ages as in the case of height. The superiority
in height and weight at this period of life is also shown.
increments of the strength of grip of the right hand, vital

are observed, it is seen that there is a similar increase at the same ages. The period of the superiority of girls over boys in rate of increase in these latter measurements, all of which involve the factor of physical power, which is less at all ages in girls than in boys, is not so great nor so long maintained as in the case of height and weight. However, the finer differences in rate of growth and development between the sexes are not of special import to us at present. The great feature for considera-

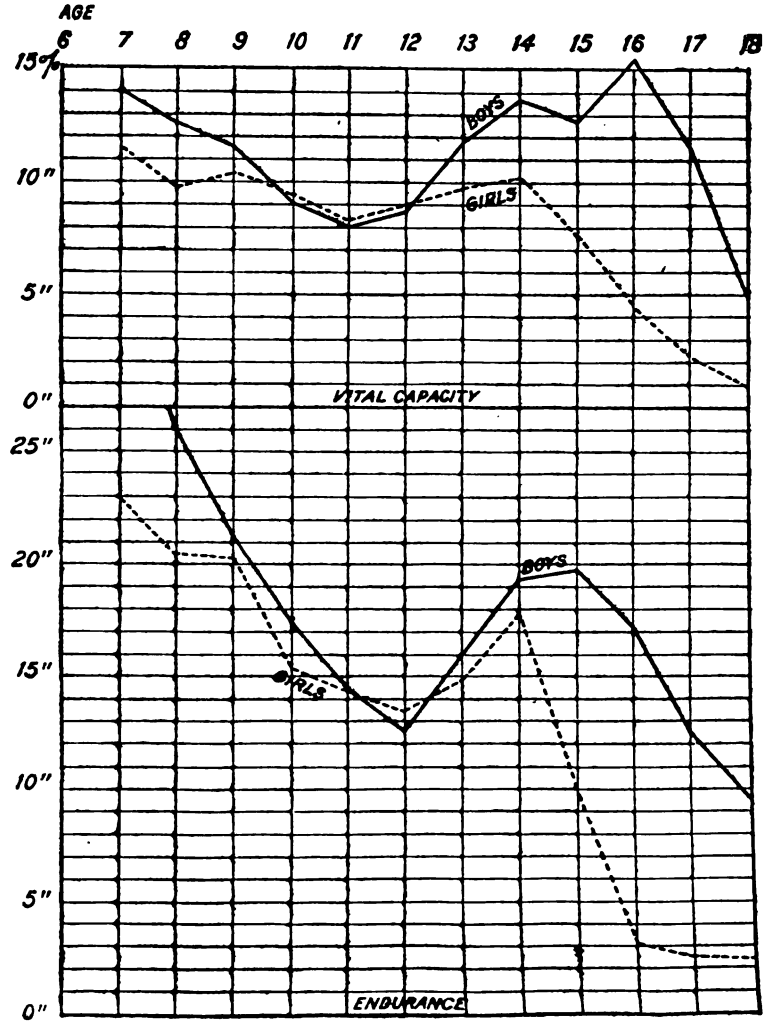


CHART II.—Rate of annual increase in vital capacity and endurance. Based on data in Table IV.

tion is this: There is an exaltation of life processes at the pubescent period which finds its expression not only in an increased rate of growth but also in the development of physical power.

Education has as its basis the bringing about of bodily changes, especially the modification of the central nervous system. The period of growth of any organ is the period of its plasticity. Although this is not the period of most rapid increase in weight of the nervous system, the rapid development of physical power would

TABLE IV.—*Annual rate of increase*—Continued.

BOYS—Continued.

Age.	Ergograph at beginning of year.	Amount of gain.	Per cent of gain.	Right-hand grip at beginning of year.	Amount of gain.	Per cent of gain.
	Kilos-cm.	*Kilos-cm.*		*Kilos.*	*Kilos.*	
6 to 7	87.47	34.65	39.62	9.21	1.53	16.61
7 to 8	122.12	32.05	26.24	10.74	1.67	15.55
8 to 9	154.17	32.90	21.34	12.41	1.93	15.55
9 to 10	187.07	32.96	17.56	14.34	2.18	15.20
10 to 11	220.03	31.83	14.46	16.52	2.33	14.10
11 to 12	251.86	31.97	12.68	18.85	2.39	12.67
12 to 13	283.83	45.38	15.98	21.24	3.20	15.06
13 to 14	329.21	63.41	19.29	24.44	3.98	16.28
14 to 15	392.62	77.51	19.74	28.42	4.97	17.44
15 to 16	470.13	81.09	17.23	33.39	5.98	17.90
16 to 17	551.22	69.42	12.59	39.37	5.37	13.38
17 to 18	620.64	59.09	9.52	44.14	4.54	10.14

Age.	Left-hand grip at beginning of year.	Amount of gain.	Per cent of gain.	Vital capacity at beginning of year.	Amount of gain.	Per cent of gain.
	C. c.	*C. c.*		*Kilos.*	*Kilos.*	
6 to 7	8.48	1.63	19.22	1,023	145	14.17
7 to 8	10.11	1.56	15.43	1,168	148	12.67
8 to 9	11.67	1.80	15.42	1,316	153	11.62
9 to 10	13.47	2.12	15.73	1,469	134	9.12
10 to 11	15.59	2.13	13.66	1,603	129	8.04
11 to 12	17.72	1.99	11.23	1,732	151	8.71
12 to 13	19.71	2.80	14.20	1,883	225	11.95
13 to 14	22.51	3.71	12.03	2,108	287	13.61
14 to 15	26.22	4.66	17.77	2,395	302	12.60
15 to 16	30.88	5.51	17.84	2,697	423	15.68
16 to 17	36.39	4.57	12.55	3,120	363	11.63
17 to 18	40.96	4.05	9.88	3,483	172	4.93

GIRLS.

Age.	Height at beginning of year.	Actual gain.	Per cent of gain.	Height sitting at beginning of year.	Actual gain.	Per cent of gain.	Weight at beginning of year.	Actual gain.	Per cent of gain.
	Mm.	*Mm.*		*Mm.*	*Mm.*		*Kilos.*	*Kilos.*	
6 to 7	1,096.6	57.1	5.20	617.0	23.7	3.84	18.870	2.104	11.15
7 to 8	1,153.7	51.2	4.44	640.7	22.7	3.54	20.974	2.036	9.71
8 to 9	1,204.9	47.5	3.94	663.4	19.8	2.98	23.010	2.247	9.77
9 to 10	1,252.4	48.3	3.86	683.2	17.3	2.53	25.257	2.538	10.05
10 to 11	1,300.7	52.8	4.06	700.5	21.8	3.11	27.795	2.867	10.31
11 to 12	1,353.5	59.6	4.40	722.3	27.0	3.74	30.662	3.711	12.10
12 to 13	1,413.1	63.7	4.51	749.3	29.8	3.98	34.373	4.601	13.38
13 to 14	1,476.8	59.6	4.04	779.1	30.8	3.95	38.974	5.245	13.46
14 to 15	1,536.4	31.9	2.08	809.9	22.2	2.74	44.219	3.942	8.91
15 to 16	1,568.3	14.7	.94	832.1	13.8	1.60	48.161	2.491	5.17
16 to 17	1,583.0	9.6	.61	845.4	6.6	.78	50.652	1.734	3.42
17 to 18	1,592.6	1.6	.10	852.0	3.1	.36	52.386	.537	1.03

Age.	Ergograph at beginning of year.	Actual gain.	Per cent of gain.	Right-hand grip at beginning of year.	Amount of gain.	Per cent of gain.
	Kilos-cm.	*Kilos-cm.*		*Kilos.*	*Kilos.*	
6 to 7	87.79	20.21	23.02	8.36	1.52	18.18
7 to 8	108.00	22.24	20.59	9.88	1.28	12.90
8 to 9	130.24	26.49	20.34	11.16	1.61	14.43
9 to 10	156.73	24.25	15.47	12.77	1.78	13.94
10 to 11	180.98	25.92	14.32	14.65	1.89	12.95
11 to 12	206.90	28.02	13.55	16.54	2.38	14.39
12 to 13	234.92	34.97	14.89	18.92	2.92	15.43
13 to 14	269.89	48.23	17.87	21.84	2.95	13.52
14 to 15	318.12	31.71	9.97	24.79	2.21	8.91
15 to 16	349.83	11.27	3.22	27.00	1.70	6.80
16 to 17	361.10	9.64	2.67	28.70	.86	3.00
17 to 18	370.74	9.63	2.60	29.56	.19	.6

subjecting the pupils to overstimulation, bad air, improper temperatures, and too limited an amount of physical exercise. Everywhere it should be borne in mind that childhood should be sacred to growth and development.

TABLE V.—*Twelve-year-old pupils, by grades.*

Grade.	Number examined.	Average age.	Average height.	Average weight.	Average ergograph.	Average strength of grip, right hand.	Average strength of grip, left hand.	Average vital capacity.
			Mm.	*Kilos.*	*Kilos-cm.*	*Kilos.*	*Kilos.*	*C. c.*
II	4	12-3-28	1,333	29.513	233.0	16.75	16.50	1,488
III	19	12-5-23	1,377	33.592	248.7	20.03	18.55	1,732
IV	84	12-5- 2	1,403	34.972	271.3	20.22	18.85	1,742
V	134	12-5- 9	1,422	35.596	268.0	21.06	19.64	1,790
VI	143	12-5-20	1,443	36.136	271.0	21.40	20.12	1,887
VII	95	12-6-13	1,451	37.150	283.0	22.31	20.41	1,947
VIII	18	12-6-29	1,443	38.453	316.6	23.31	21.07	3,053

TABLE VI.—*Physical development and school standing.*

BOYS.

Age.		Number tested.	Average age.	Height standing.	Height sitting.	Weight.	Ergograph.	Right grip.	Left grip.	Vital capacity.
				Mm.	*Mm.*	*Kilos.*	*Kilo-cm.*	*Kilos.*	*Kilos.*	*C. c.*
8	At and above grade..	210	8-5-25	1,238	679	25.286	170.1	13.46	12.49	1,395
	Below	45	8-4-12	1,210	667	23.790	155.2	12.05	11.68	1,353
9	At and above grade..	151	9-6-21	1,300	702	27.907	209.4	16.12	15.32	1,588
	Below	77	9-5-2	1,264	692	26.787	198.2	14.59	13.66	1,472
10	At and above grade..	158	10-6-1	1,340	717	30.258	240.5	17.84	16.62	1,670
	Below	96	10-5-25	1,314	707	29.145	225.7	17.42	16.52	1,642
11	At and above grade..	125	11-6-23	1,376	731	32.814	270.6	20.05	18.64	1,828
	Below	103	11-5-25	1,363	727	32.180	264.1	19.82	18.82	1,766
12	At and above grade..	130	12-6-10	1,436	754	36.843	306.6	23.38	21.44	2,063
	Below	126	12-5-4	1,399	740	34.370	286.2	21.38	19.70	1,844
13	At and above grade..	117	13-6-18	1,500	782	41.470	372.4	27.42	24.98	2,334
	Below	113	13-5-1	1,475	771	39.040	341.5	25.07	23.38	2,163
14	At and above grade..	146	14-6-8	1,564	815	46.218	437.3	30.69	28.31	2,638
	Below	104	14-5-2	1,520	793	42.775	404.9	29.13	27.05	2,360
15	At and above grade..	125	15-5-26	1,622	843	51.394	507.8	36.64	33.54	2,978
	Below	80	15-5-23	1,599	827	50.369	515.9	35.79	33.40	2,749
16	At and above grade..	77	16-5-28	1,689	881	58.246	606.8	43.21	39.86	3,542
	Below	69	16-4-25	1,637	859	53.289	575.7	40.90	37.69	3,165
17	At and above grade..	46	17-5-11	1,702	897	60.417	654.0	47.57	43.60	3,646
	Below	46	17-5-24	1,677	884	58.069	648.7	46.23	41.89	3,495
18	At grade	28	18-5-27	1,737	917	60.971	670.0	50.53	44.82	3,644
	Below	17	18-4-3	1,726	911	64.252	723.8	51.41	48.17	3,741

GIRLS.

8	At and above grade..	187	8-6-10	1,236	677	24.373	147.4	11.89	11.16	1,238
	Below	45	8-4-26	1,195	662	22.424	120.2	10.73	10.68	1,113
9	At and above grade..	156	9-6-15	1,283	693	26.862	174.9	13.94	12.97	1,381
	Below	65	9-4-29	1,266	688	25.769	163.0	13.77	13.12	1,308
10	At and above grade..	157	10-6-5	1,330	711	29.289	193.4	15.61	14.62	1,452
	Below	83	10-4-5	1,308	704	28.365	183.8	14.91	13.98	1,465
11	At and above grade..	121	11-5-25	1,390	738	32.651	223.7	18.04	17.16	1,611
	Below	102	11-5-5	1,370	731	31.516	219.3	17.00	15.87	1,560
12	At and above grade..	132	12-5-27	1,456	767	36.655	252.4	20.38	19.12	1,763
	Below	115	12-5-10	1,423	756	35.958	241.2	19.77	18.69	1,675
13	At and above grade..	151	13-7-3	1,526	803	42.673	296.3	23.94	22.10	1,939
	Below	101	13-5-13	1,492	788	40.036	291.8	23.08	21.60	1,901
14	At and above grade..	226	14-6-20	1,572	833	48.060	347.6	26.41	24.22	2,160
	Below	75	14-5-23	1,539	802	44.582	332.9	25.53	23.81	1,986
15	At and above grade..	314	15-6-9	1,576	842	49.745	360.7	28.09	25.96	2,255
	Below	65	15-4-24	1,564	831	47.413	336.2	27.09	25.07	2,083
16	At and above grade..	182	16-6-19	1,599	855	53.091	389.3	30.01	27.79	2,340
	Below	172	16-4-23	1,584	848	50.773	405.7	28.95	26.80	2,267
17	At and above grade..	132	17-5-29	1,602	855	53.039	373.4	29.97	27.23	2,331
	Below	119	17-5-1	1,590	851	51.663	366.5	29.23	26.97	2,274
18	At grade	63	18-5-2	1,597	856	53.214	387.2	30.15	27.84	2,396
	Below	74	18-4-19	1,594	858	52.846	376.7	29.57	27.69	2,311

TABLE IX.—*Motor defects.*

	Age.										
	8 years.	9 years.	10 years.	11 years.	12 years.	13 years.	14 years.	15 years.	16 years.	17 years.	18 years.
Number examined	212	171	155	131	131	132	163	183	117	77	43
Average number of motor defects seen in pupils at and above grade	3.4	3.6	3.8	4.1	2.9	2.4	2.8	3.2	3.1	2.9	2.4
Number examined	57	88	118	122	146	132	93	59	134	96	55
Average number of motor defects seen in pupils below grade	3.8	4.1	4.1	4.6	3.9	3.3	3.5	8.0	3.3	3.2	3.0
Number examined	.....	2	10	24	54	47	65	51	24	7	.....
Average number of motor defects seen in pupils of John Worthy School	.....	10.0	8.0	8.2	8.0	8.1	6.67	7.3	7.5	6.3	.....

TESTS OF SIGHT.

The sight of the pupils was tested in the Kozminski, Andersen, and Tennyson elementary schools and the Englewood and Lake View high schools. This test of visual acuity was made by means of the ordinary Snellen's type, the test cards being selected by Dr. Frank Allport, consulting oculist and aurist to the department of child study. Well-lighted rooms were used for these tests. In testing sight the child was seated in a chair placed 20 feet away from the test chart, and, with the left eye covered, he was asked to begin at the top of the card and read aloud down the card as far as he could. After this was done the right eye was covered and the left eye tested. The last line of which the pupil was able to read the majority of the letters showed his visual acuity for the eye used. Visual acuity was recorded by placing the number representing the normal reading distance of the last line which the pupil was able to read as the denominator and the distance from which it was read (20 feet) as the numerator of a fraction. Thus, if a child seated 20 feet from the chart could read the majority of the letters of the line normally read at 30 feet, but could not read a majority of the letters of the line normally read at 20 feet, he would be $\frac{20}{30}$ in visual acuity for the eye tested.

These tests were made without spectacles where the pupils wore glasses, as the aim was to find the number with subnormal visual acuity for each year.

Four thousand seven hundred and sixty-five pupils were tested—2,030 boys, 2,735 girls. Thirty-five per cent of all the pupils tested were found defective—37 per cent of the girls and 32 per cent of the boys. Thus 5 per cent more of the girls were found to be defective than the boys. Table X shows something of the results of these tests. Thirty-two per cent of the 6-year-old pupils were found subnormal in vision. For the first three years of school life the per cent of those defective rapidly increases, suggesting that the school work of that period is hard on the eyes of the pupils. After the age of 9 years is passed the per cent of pupils having eye defects decreases; at first slowly, then more rapidly until the age of 13 is passed. This decrease in the per cent of eye defects parallels so closely the period of rapid growth and development that the improvement may be considered a manifestation of the improved health of this period of florid growth. The slight rise at 14 is probably due to the larger proportion of girls found in the high schools at that and the following years. It will be remembered that girls have a larger per cent of eye defects than boys.

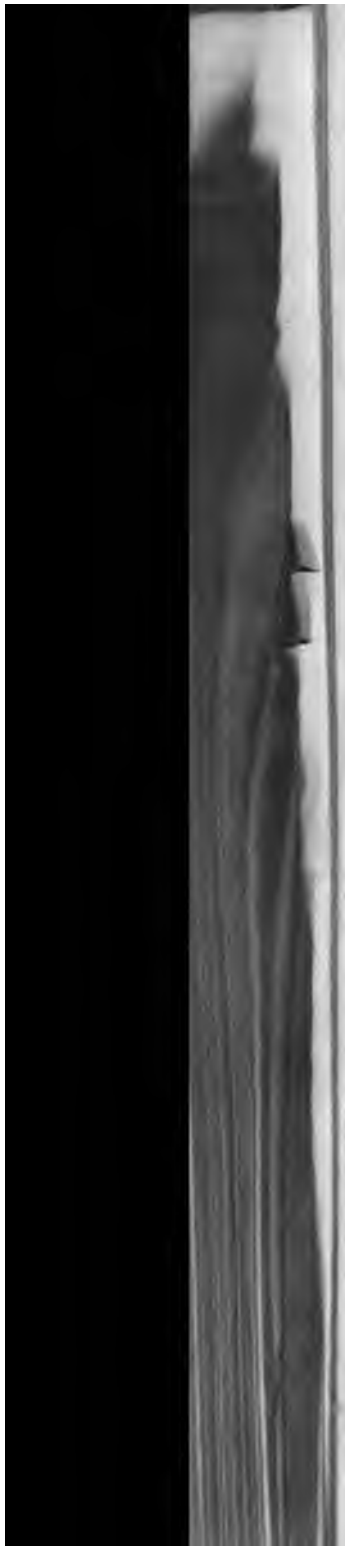


TABLE XIV.—*Hearing and school standing—Pupils having points below normal.*

Age.	
8	Above grade
	Below grade
9	Above grade
	Below grade
10	Above grade
	Below grade
11	Above grade
	Below grade
12	Above grade
	Below grade
13	Above grade
	Below grade
14	Above grade
	Below grade
15	Above grade
	Below grade
16	Above grade
	Below grade
17	Above grade
	Below grade
18	At grade
	Below grade

CONCLUSIONS.

Many of the tests and measurements which this depart
nary to other investigations, which, it is suggested, shou
to different lines of mental development, methods of ins
ments. It is believed that the utility of much of the
appear as it forms a basis for these future investigations
are certain truths important for educational theory and
clearly foreshadowed as to warrant their being set forth

From the investigations of last year Dr. Christophe
deductions:

1. In general there is a distinct relationship in children
and intellectual capacity, the latter varying directly as t

2. The endurance (ergographic work) of boys is great
ages, and the difference seems to increase after the age o

3. There are certain anthropometric indications which
ough investigation into the subject of coeducation in the

4. Physical condition should be made a factor in the g
work, and especially for the entrance into the first grade

5. The great extremes in physical condition of pupils in
make it desirable to introduce great elasticity into the w

6. The classes in physical culture should be graded o
intellectual basis.

The work this year, so far as it relates to them, confirm
as to the age when great differentiation of the sexes in e
certain other conclusions are added, not as settled beyon
cation, but yet as being fairly indicated by these tests.

1. The pubescent period is characterized by great an
weight, strength of grip, vital capacity, and endurance.
this physical activity a corresponding intellectual and em
fore is a period when broad educational influences ar
pedagogic standpoint it is preeminently a time for charac

2. The pubescent period is characterized by extensive r
of the individuals in it. Hence, although a period fit fo

of children, it is also one of numerous individual exceptions to this general law. During this period a greater per cent of individuals than usual pass beyond the range of normal limits set by the mass. It is a time, therefore, when the weak fail and the able forge to the front, and hence calls for a higher degree than usual of individualization of educational work and influence.

3. Unidexterity is a normal condition. Rapid and marked accentuation of unidexterity is a pubescent change. On the whole there is a direct relationship between the degree of unidexterity and the intellectual progress of the pupil. At any given age of school life bright or advanced pupils tend toward accentuated unidexterity and dull or backward pupils tend toward ambidexterity. The pupils of the John Worthy (Bridewell) School are more nearly ambidextrous than even the backward pupils of the ordinary schools. Training in ambidexterity is training contrary to a law of child life.

4. Boys of school age at the Bridewell are inferior in all physical measurements to boys in the ordinary schools, and this inferiority seems to increase with age.

5. Defects of sight and hearing are more numerous among the dull and backward pupils. These defects should be taken into consideration in the seating of pupils. Only by removing the defects can the best advancement of the pupils be secured.

6. The number of eye and ear defects increases during the first years of school life. The causes of this increase should be investigated and as far as possible removed.

7. There are certain parts of the school day when pupils, on the average, have a higher storage of energy than at other periods. These periods should be utilized for the highest forms of educational work.

8. The stature of boys is greater than that of girls up to the age of 11, when the girls surpass the boys and remain greater in stature up to the age of 14. After 14 girls increase in stature very slowly and very slightly, while boys continue to increase rapidly until 18.

9. The weight of the girl surpasses that of the boy about a year later than her stature surpasses his, and she maintains her superiority in weight to a later period of time than she maintains her superiority in height.

10. In height sitting girls surpass boys at the same age as in stature, viz, 11 years, but they maintain their superiority in this measurement for one year longer than they do in stature, which indicates that the more rapid growth of the boy at this age is in the lower extremities rather than in the trunk.

11. Commencing at the age of 13, strength of grip in boys shows a marked accentuation in its rate of increase, and this increase continues as far as our observations extend, viz, to the age of 20. In girls no such great acceleration in muscular strength at puberty occurs, and after 16 there is little increase in strength of grip. The well-known muscular differentiation of the sexes practically begins at 13.

12. As with strength of grip, so with endurance as measured by the ergograph, boys surpass girls at all ages, and this differentiation becomes very marked after the age of 14, after which age girls increase in strength and endurance but very slightly, while after 14 boys acquire almost exactly half of the total power in these two features which they acquire in the first twenty years of life.

13. The development of vital capacity bears a striking resemblance to that of endurance, the curves representing the two being almost identical.

[From report of Director Fred W. Smedley for 1900-1901.]

SCHOOL DESKS.

At the beginning of the school year we were directed by the committee on child study and pedagogical investigation of the board of education to determine what sizes of desks are best suited to the pupils of each of the different grades and wh

proportion of the desks should be adjustable. It is well known that an ill-fitting desk impedes circulation, causes unhealthful postures, muscular strain, fatigue, and in time even spinal curvature. The discomfort engendered distracts the attention and interferes with the best conditions of school work. Some cities have met this problem by having all of the desks adjustable; but as adjustable desks are more expensive, and as it had been found troublesome to adjust a large number of desks the Chicago board of education adopted the policy of having only a portion of the desks adjustable. These measurements were undertaken to guide in the future purchase of desks. The measurements which we had previously taken of nearly 7,000 pupils were supplemented by special measurements, taken chiefly at the Alcott School. This gave us data for determining the matter upon a broad basis. The result of this investigation appears in the following report presented by Dr. W. S. Christopher, chairman of the committee, to the board of education and adopted by them on September 19, 1900:

The committee on child-study and pedagogical investigation beg to report that at the opening of schools this fall it had observations made to determine the varying sizes of children which the several sizes of desks used can accommodate. Different children were placed in each desk until there was determined with reference to each desk the stature of the shortest pupil and the stature of the tallest pupil who could be properly accommodated by that desk.

The results were as follows:

TABLE I.

Desk number.	Height of seat.	Maximum stature accommodated.	Minimum stature accommodated.
	Inches.	*Mm.*	*Mm.*
1	17	1,865	1,55
2	16	1,740	1,47
3	15	1,620	1,37
4	14	1,500	1,27
5	13	1,382	1,19
6	12	1,270	1,13

The adjustable desks supplied under the existing contracts are known as—

A1, with seat adjustable from 15½ to 17½ inches.

B1, with seat adjustable from 13½ to 15½ inches.

C1, with seat adjustable from 12 to 14 inches.

The measurements which have been made by this department since its inauguration supplied the material necessary to determine what percentage of pupils in each grade could be provided with a fixed desk, what size desk could accommodate the largest percentage of those pupils, and which adjustable desk and how many should be supplied.

This information is given in the following table:

TABLE II.

Grade.	Desk number.	Per cent of pupils of this grade of stature below minimum for this desk.	Per cent of pupils of this grade of stature within limits accommodated by this desk.	Per cent of pupils of this grade of stature above maximum for this desk.
High school	1	15.87	83.78	0.3
Eighth	2	10.75	86.56	2.6
Seventh	3	4.18	78.07	17.7
Sixth	3	11.06	83.58	5.4
Fifth	4	3.07	81.55	15.3
Fourth	4	8.75	87.04	4.2
Third	5	3.50	82.91	13.5
Second	5	19.97	77.50	2.5
First	6	25.77	72.42	1.8

with very defective sight were examined and decision made as to
nary school or the department of the blind was best suited for th
was done with those with defective hearing. High school pupils,
might choose their course of study wisely, have sought our opi
certain deformities would prevent their passing the physical exa
ing the normal school. Teachers have brought pupils with sp
laboratory in order to learn more about the nature and causes of t
they best could be removed. Many dull, nervous, and frail c
brought in. Sometimes the child's needs demanded medical or
and he was referred to the family physician or a dispensary.
and educational régime was most demanded.

THE JOHN WORTHY SCHOOL.

In order to secure a broader basis for conclusions concernin
represented by the John Worthy School, the school in connectio
correction, tests and measurements were again taken on the i
Seventy of these pupils had been measured last year, and the dat
were allowed to count again in the compilation here presented,
work of both years. As seen from Table IV, the addition of t
examination of 247 new subjects tends to confirm the conclusions
John Worthy boys are inferior in all the principal measureme
inferiority increases with age.

TABLE IV.—*Comparison of the John Worthy averages with*

NET HEIGHT.

Age.	Number.	John Worthy average.
		Mm.
9	6	1,308
10	25	1,318
11	51	1,335
12	99	1,380
13	114	1,424
14	144	1,461
15	111	1,512
16	37	1,531
17	14	1,568

HEIGHT, SITTING.

9	6	699
10	25	712
11	51	717
12	99	740
13	114	754
14	144	768
15	111	784
16	37	795
17	14	819

WEIGHT.

		Kilos.
9	6	28.825
10	25	31.148
11	51	32.422
12	99	34.459
13	114	37.394
14	144	39.083
15	111	44.065
16	37	44.751
17	14	46.025

TABLE IV.—*Comparison of the John Worthy averages with the norms*—Continued.

GRIP.

Age.	Number.	Right hand.			Left hand.		
		John Worthy.	Normal.	Per cent John Worthy is of normal.	John Worthy.	Normal.	Per cent John Worthy is of normal.
		Kilos.	*Kilos.*		*Kilos.*	*Kilos.*	
9	6	14.9	15.4	96.81	14.4	14.5	99.03
10	25	15.7	17.7	88.89	15.1	16.6	96.03
11	51	17.2	19.9	86.25	16.5	18.7	86.53
12	99	19.1	22.4	85.26	18.3	20.6	88.92
13	114	19.7	26.3	75.01	19.1	24.2	78.82
14	144	22.2	30.7	72.31	21.3	27.9	76.23
15	111	26.0	36.3	71.62	24.8	33.6	73.69
16	37	27.2	42.1	64.56	26.6	38.8	68.52
17	14	28.5	46.9	63.20	27.7	42.7	64.83

ERGOGRAPHIC WORK.

Age.	Number.	John Worthy average.	Normal.	Per cent John Worthy is of normal.
		Kilo-cm.	*Kilo-cm.*	
9	6	167.1	205.6	81.27
10	25	200.0	235.0	85.10
11	51	222.6	267.7	83.15
12	99	250.7	297.8	84.19
13	114	288.5	359.2	80.31
14	144	314.0	423.8	74.09
15	111	382.4	513.5	74.46
16	37	377.9	584.7	64.63
17	14	387.8	651.4	59.53

VITAL CAPACITY.

		C. c.	*C. c.*	
9	6	1,566	1,549	101.09
10	25	1,657	1,659	99.87
11	51	1,669	1,799	92.77
12	99	1,763	1,956	90.13
13	114	2,000	2,246	89.04
14	144	2,239	2,527	88.60
15	111	2,413	2,858	84.42
16	37	2,488	3,363	73.97
17	14	2,660	3,570	74.50

PERCENTILES.

The large addition to the numbers that have been measured and tested has permitted our classification of the results into percentile groups in reference to height, weight, strength of grip, and vital capacity. Tables have thus been produced which will be of especial service in the child-study laboratory and of value to all who make a study of individual children. By means of these tables one can determine closely how a given child compares with others of his age. These percentiles have been obtained in the following manner: The individual cards on which the measurements were recorded when the child was tested were arranged according to the size of the pupils in each measurement, grouped separately for each age in years. The minimum measurement in each such group gave the zero percentile for that group. To determine the 10 percentile for that group 10 per cent of the number of cards was removed, beginning at the minimal end, and the highest measurement on the cards so removed was recorded as the desired 10 percentile. Similarly the other percentiles were determined, the maximum measurement being recorded as the 100 percentile.

TABLE V.—*Percentiles.*

FOUR-YEAR-OLD BOYS.

[Number of cases, 58.]

Per cent.	Height, standing.	Height, sitting.	Weight
	Mm.	*Mm.*	*Kilos.*
100	1,165	624	21.60
90	1,096	614	20.37
80	1,063	610	18.77
70	1,038	598	17.85
60	1,029	593	17.27
50	1,018	587	17.00
40	1,010	583	16.60
30	997	578	16.25
20	986	568	15.87
10	964	554	14.55
0	866	502	12.90

FIVE-YEAR-OLD BOYS.

[Number of cases, 123.]

100	1,183	697	26.65
90	1,124	643	21.55
80	1,112	630	20.10
70	1,100	625	19.35
60	1,090	617	18.75
50	1,079	612	18.47
40	1,065	606	17.95
30	1,055	601	17.60
20	1,045	595	17.07
10	1,030	588	16.67
0	969	550	13.72

SIX-YEAR-OLD BOYS.

[Number of cases, 341.]

Per cent.	Height, standing.	Height, sitting.	Weight.	Grip of right hand.
	Mm.	*Mm.*	*Kilos.*	*Kilos.*
100	1,289	707	29.600	16.5
90	1,200	688	23.525	13.5
80	1,179	657	22.725	12.0
70	1,159	648	21.950	11.5
60	1,148	641	21.100	11.0
50	1,135	635	20.475	10.5
40	1,123	630	20.050	10.0
30	1,112	623	19.575	10.0
20	1,093	616	19.050	9.0
10	1,067	603	18.275	8.0
0	988	568	15.875	5.0

SEVEN-YEAR-OLD BOYS.

[Number of cases, 432.]

100	1,360	732	32.025	20.0
90	1,248	689	25.600	15.0
80	1,225	679	24.500	14.0
70	1,212	670	23.800	13.0
60	1,200	664	23.000	12.5
50	1,190	658	22.450	12.0
40	1,172	652	21.900	11.5
30	1,163	644	21.200	11.0
20	1,146	638	20.650	10.0
10	1,125	626	19.850	9.0
0	1,036	587	17.000	5.0

TABLE V.—*Percentiles*—Continued.

EIGHT-YEAR-OLD BOYS.

[Number of cases, 428.]

Per cent.	Height, standing.	Height, sitting.	Weight.	Grip of right hand.	Grip of left hand.	Vital capacity.	Work on ergograph.
	Mm.	*Mm.*	*Kilos.*	*Kilos.*	*Kilos.*	*C. c.*	*Kilos-cm.*
100	1,382	756	62.200	24.0	22.0	2,100	324.0
90	1,320	710	28.800	18.0	17.0	1,700	232.2
80	1,278	700	27.100	16.5	15.5	1,575	208.0
70	1,262	690	26.025	15.0	14.0	1,500	195.8
60	1,245	683	25.300	14.5	13.5	1,400	180.0
50	1,230	676	24.300	13.5	13.0	1,350	170.0
40	1,216	670	23.900	13.0	12.0	1,300	157.7
30	1,201	662	23.175	12.0	11.0	1,250	142.6
20	1,185	653	22.350	11.0	10.0	1,200	127.5
10	1,161	642	21.450	10.0	9.0	1,100	112.2
0	1,097	607	17.900	7.0	7.0	800	46.8

NINE-YEAR-OLD BOYS.

[Number of cases, 373.]

100	1,478	786	38.600	30.0	25.0	2,250	391.0
90	1,369	733	31.575	20.0	19.0	1,850	287.3
80	1,336	722	30.000	18.0	17.5	1,700	250.0
70	1,316	713	29.025	17.0	16.0	1,625	234.0
60	1,299	706	28.125	16.5	15.0	1,600	219.3
50	1,285	697	27.200	16.0	15.0	1,500	205.2
40	1,274	690	26.500	15.0	14.0	1,450	187.5
30	1,261	683	25.575	14.0	13.0	1,400	174.0
20	1,243	674	24.800	13.0	12.0	1,300	160.0
10	1,214	664	23.650	11.5	11.0	1,225	140.6
0	1,072	585	20.000	8.0	7.0	850	83.0

TEN-YEAR-OLD BOYS.

[Number of cases, 399.]

100	1,479	780	50.400	32.0	26.5	2,750	525.0
90	1,415	746	34.500	22.0	20.0	2,000	326.5
80	1,380	735	32.525	20.0	19.0	1,900	292.0
70	1,362	726	31.400	19.0	18.0	1,800	275.0
60	1,345	720	30.200	18.0	17.0	1,700	254.1
50	1,332	714	29.450	17.0	16.0	1,650	241.3
40	1,318	707	28.525	16.5	15.0	1,600	224.0
30	1,304	700	27.750	16.0	14.5	1,500	208.0
20	1,287	693	26.850	14.5	13.0	1,450	189.2
10	1,259	679	25.375	13.0	12.0	1,350	169.1
0	1,166	555	19.580	10.0	8.0	900	112.0

ELEVEN-YEAR-OLD BOYS.

[Number of cases, 356.]

100	1,639	819	52.400	31.0	26.5	3,000	499.8
90	1,452	767	37.865	25.0	23.0	2,200	373.8
80	1,425	755	35.650	23.0	21.0	2,050	334.9
70	1,403	748	34.300	21.0	20.0	1,975	303.4
60	1,389	739	33.285	20.0	19.0	1,875	288.0
50	1,378	730	32.162	19.0	18.0	1,800	273.4
40	1,357	723	31.200	18.0	17.0	1,725	255.3
30	1,342	714	30.075	17.0	16.0	1,650	241.3
20	1,324	706	28.855	16.0	15.0	1,550	218.6
10	1,291	692	27.075	15.0	13.0	1,400	191.8
0	1,131	632	18.850	11.0	10.0	1,100	83.6

TABLE V.—*Percentiles*—Continued.

TWELVE-YEAR-OLD BOYS.

[Number of cases, 373.]

Per cent.	Height, standing.	Height, sitting.	Weight.	Grip of right hand.	Grip of left hand.	Vital capacity.	Work on ergograph
	Mm.	*Mm.*	*Kilos.*	*Kilos.*	*Kilos.*	*C. c.*	*Kilos-cm.*
100	1,613	837	64.375	37.0	32.0	3,150	588.
90	1,507	786	42.350	28.0	26.0	2,400	427.
80	1,479	773	40.800	26.0	24.0	2,225	390.
70	1,457	764	37.700	24.0	22.0	2,100	353.
60	1,437	757	36.350	23.0	21.0	2,025	327.
50	1,421	749	35.200	22.0	20.0	1,950	306.
40	1,403	741	33.525	21.0	19.0	1,875	290.
30	1,381	732	33.000	20.0	18.0	1,800	266.
20	1,364	722	31.300	18.0	17.0	1,700	234.
10	1,330	710	29.700	17.0	15.0	1,600	206.
0	1,252	642	25.200	10.0	9.0	1,150	106.

THIRTEEN-YEAR-OLD BOYS.

[Number of cases, 353.]

100	1,730	941	72.700	62.0	50.0	4,200	1,086.
90	1,599	881	48.400	33.0	31.0	2,750	502.
80	1,557	808	44.800	30.0	28.0	2,500	450.
70	1,528	794	42.850	28.0	26.0	2,350	405.
60	1,505	782	40.925	26.0	24.0	2,300	378.
50	1,484	770	38.800	25.0	23.0	2,200	353.
40	1,462	763	37.700	23.0	21.0	2,100	331.
30	1,446	756	36.450	22.0	20.0	2,000	312.
20	1,428	747	35.100	21.0	19.0	1,900	285.
10	1,400	734	33.150	19.0	17.5	1,800	243.
0	1,311	696	28.150	13.0	10.0	1,500	136.

FOURTEEN-YEAR-OLD BOYS.

[Number of cases, 359.]

100	1,763	950	68.325	56.0	51.0	4,400	883.
90	1,666	868	55.300	40.0	36.0	3,300	584.
80	1,614	845	51.150	35.0	32.0	2,950	589.
70	1,592	826	47.975	32.0	30.0	2,750	496.
60	1,569	813	45.900	30.0	28.0	2,575	448.
50	1,550	802	44.125	28.0	26.0	2,450	414.
40	1,528	790	42.050	26.0	25.0	2,300	384.
30	1,492	778	40.150	24.0	23.0	2,200	359.
20	1,468	765	37.900	22.5	21.0	2,100	320.
10	1,435	750	35.200	21.0	19.0	1,850	265.
0	1,305	700	25.900	15.0	14.0	1,200	165.

15-YEAR-OLD BOYS.

[Number of cases, 262.]

100	1,846	958	97.925	63.0	61.0	4,550	1,049.
90	1,715	900	61.673	47.0	45.0	3,650	735.
80	1,682	881	57.150	43.0	39.0	3,400	643.
70	1,652	865	54.425	40.0	38.5	3,200	591.
60	1,629	850	52.200	38.0	35.0	3,000	546.
50	1,616	837	50.100	35.0	32.0	2,800	516.
40	1,589	821	48.350	32.0	30.0	2,700	458.
30	1,562	810	46.375	30.0	28.0	2,500	416.
20	1,538	796	43.125	28.0	26.0	2,350	374.
10	1,493	775	39.650	26.0	23.0	2,150	315.
0	1,323	647	30.150	14.0	15.0	1,400	182.

TABLE V.—*Percentiles*—Continued.

16-YEAR-OLD BOYS.

[Number of cases, 174.]

Per cent.	Height, standing.	Height, sitting.	Weight.	Grip of right hand.	Grip of left hand.	Vital capacity.	Work on ergograph.
	Mm.	*Mm.*	*Kilos.*	*Kilos.*	*Kilos.*	*C.c.*	*Kilos-cm.*
100	1,853	957	105.625	85.0	79.0	5,100	1,317.2
90	1,750	923	66.090	50.0	48.0	4,200	777.7
80	1,732	907	61.770	48.0	45.0	3,800	697.6
70	1,706	895	58.700	46.0	42.0	3,600	640.2
60	1,687	886	57.350	44.0	40.0	3,500	593.6
50	1,672	876	55.500	41.0	38.0	3,300	543.6
40	1,650	861	53.350	39.0	36.0	3,150	511.0
30	1,618	849	50.725	36.0	34.0	2,950	481.2
20	1,593	835	48.600	34.0	31.0	2,800	444.0
10	1,550	810	45.675	30.0	26.0	2,400	415.4
0	1,420	724	34.550	17.0	16.0	1,800	261.0

17-YEAR-OLD BOYS.

[Number of cases, 106.]

100	1,828	963	81.400	72.0	67.0	5,000	1,117.8
90	1,776	944	70.975	58.0	54.5	4,350	825.6
80	1,737	925	66.150	53.0	48.0	4,000	774.4
70	1,722	916	64.100	51.5	46.0	3,850	717.6
60	1,711	910	61.350	49.0	45.0	3,700	675.1
50	1,684	897	58.975	45.5	43.0	3,575	646.0
40	1,678	887	57.200	43.5	40.0	3,450	608.0
30	1,662	876	55.000	41.0	38.0	3,250	562.4
20	1,642	866	53.400	39.0	35.0	3,125	525.6
10	1,604	838	49.200	35.5	32.0	2,990	447.2
0	1,376	737	34.225	20.0	18.0	1,750	337.8

18-YEAR-OLD BOYS.

[Number of cases, 46.]

100	1,839	997	83.800	71.0	68.0	5,000	1,012.0
90	1,811	955	71.360	62.0	58.0	4,750	900.0
80	1,784	937	67.340	58.0	52.0	4,200	796.5
70	1,764	932	65.600	54.0	49.0	4,125	740.0
60	1,748	929	64.875	51.5	48.0	3,975	721.6
50	1,742	926	63.825	49.5	46.5	3,850	685.4
40	1,729	914	62.360	48.0	45.0	3,600	640.0
30	1,695	902	60.100	46.0	41.0	3,500	612.5
20	1,677	886	56.440	41.0	39.0	3,350	592.8
10	1,659	865	53.800	41.0	35.0	3,200	554.4
0	1,610	830	45.575	36.0	31.0	2,450	383.8

BOYS 19 AND 20 YEARS.

[Number of cases, 44.]

Per cent.	Height, standing.	Height, sitting.	Weight.	Grip of right hand.	Grip of left hand.	Vital capacity.
	Mm.	*Mm.*	*Kilos.*	*Kilos.*	*Kilos.*	*C.c.*
100	1,979	1,010	98.000	77.0	62.0	5,625
90	1,831	964	74.874	64.0	60.0	4,850
80	1,786	947	70.230	61.0	53.0	4,460
70	1,758	924	68.360	60.0	52.0	4,100
60	1,739	920	66.560	57.0	50.0	3,940
50	1,728	910	63.300	51.0	48.0	3,825
40	1,708	903	59.990	50.0	46.0	3,660
30	1,697	888	57.425	47.0	42.0	3,500
20	1,652	884	54.740	46.0	40.0	3,280
10	1,637	858	53.775	42.0	38.0	3,100
0	1,481	814	47.625	37.0	32.0	2,150

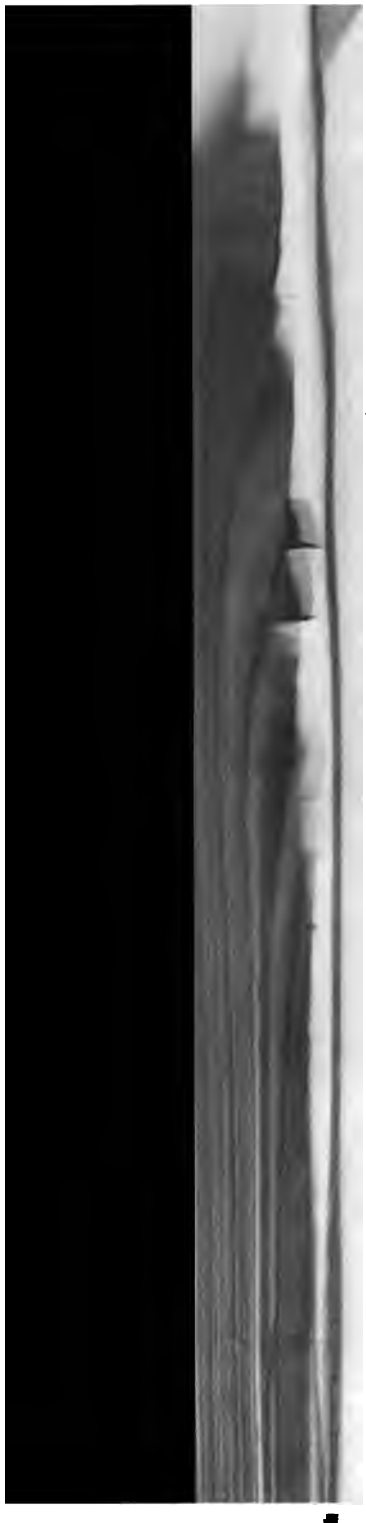


TABLE V.—*Percentiles*—Continue

MEN 21 YEARS AND OVER.

[Number of cases, 46.]

Per cent.	Height, standing.	Height, sitting.	Weigh
	Mm.	*Mm.*	*Kilos.*
100	1,847	961	92.10
90	1,792	940	74.60
80	1,775	936	70.04
70	1,742	924	69.86
60	1,720	910	68.04
50	1,713	902	66.95
40	1,700	898	65.15
30	1,669	892	62.66
20	1,662	888	58.74
10	1,636	878	56.05
0	1,577	841	53.70

FOUR-YEAR-OLD GIRLS.

[Number of cases, 58.]

100	1,161	650	21.97
90	1,059	610	19.10
80	1,043	600	18.13
70	1,030	592	16.85
60	1,020	585	16.57
50	1,008	577	16.30
40	994	574	16.00
30	984	571	15.70
20	974	568	15.12
10	955	554	14.60
0	926	543	12.80

FIVE-YEAR-OLD GIRLS.

[Number of cases, 116.]

100	1,184	662	23.60
90	1,137	631	20.60
80	1,115	624	19.80
70	1,091	616	18.97
60	1,080	610	18.40
50	1,067	602	17.85
40	1,055	597	17.15
30	1,042	591	16.62
20	1,022	584	16.00
10	1,001	572	15.20
0	937	533	13.30

SIX-YEAR-OLD GIRLS.

[Number of cases, 338.]

Per cent.	Height, standing.	Height, sitting.	Weight.	Grip of right hand.
	Mm.	*Mm.*	*Kilos.*	*Kilos.*
100	1,282	699	29.250	15.5
90	1,191	664	23.050	12.0
80	1,168	654	21.950	11.0
70	1,152	644	21.325	10.0
60	1,136	635	20.500	10.0
50	1,125	629	19.900	9.5
40	1,114	623	19.450	9.0
30	1,101	617	18.850	8.5
20	1,088	610	18.225	8.0
10	1,065	597	17.200	7.0
0	959	556	13.850	4.0

TABLE V.—*Percentiles*—Continued.

SEVEN-YEAR-OLD GIRLS.

[Number of cases, 423.]

Per cent.	Height, standing.	Height, sitting.	Weight.	Grip of right hand.	Grip of left hand.	Vital capacity.	Work on ergograph.
	Mm.	*Mm.*	*Kilos.*	*Kilos.*	*Kilos.*	*Cc.*	*Kilo-cm.*
100	1,341	719	31.800	16.0	16.0	1,650	289.8
90	1,241	682	25.250	14.0	13.0	1,300	166.4
80	1,220	673	23.900	12.5	12.0	1,250	147.2
70	1,202	665	23.000	12.0	11.0	1,200	136.5
60	1,190	659	22.375	11.0	10.5	1,150	123.2
50	1,180	653	21.675	11.0	10.0	1,100	114.0
40	1,170	646	21.025	10.0	9.5	1,050	106.5
30	1,152	639	20.425	10.0	9.0	1,000	98.8
20	1,134	632	19.800	9.0	8.0	975	91.2
10	1,113	620	18.550	8.0	7.5	900	79.3
0	975	585	15.350	5.0	4.0	750	42.0

EIGHT-YEAR-OLD GIRLS.

[Number of cases, 401.]

100	1,408	757	41.175	20.0	19.0	1,800	287.0
90	1,300	704	27.700	15.0	14.0	1,450	197.6
80	1,274	693	26.150	14.0	13.0	1,350	174.8
70	1,257	685	25.300	13.0	12.0	1,300	166.6
60	1,245	678	24.400	12.5	11.5	1,250	153.9
50	1,233	673	23.800	12.0	11.0	1,200	142.8
40	1,221	667	23.050	11.0	10.0	1,150	134.3
30	1,205	660	22.400	10.5	9.5	1,100	119.0
20	1,188	653	21.550	10.0	9.0	1,000	107.2
10	1,165	642	20.700	9.0	8.0	950	95.4
0	1,052	603	17.175	6.0	5.0	500	45.0

NINE-YEAR-OLD GIRLS.

[Number of cases, 324.]

100	1,436	798	41.550	24.0	22.5	2,100	437.8
90	1,356	729	31.040	17.0	16.0	1,600	236.9
80	1,323	715	29.105	15.5	14.5	1,500	212.5
70	1,311	706	28.120	15.0	14.0	1,450	195.8
60	1,296	700	27.135	14.0	13.0	1,400	180.5
50	1,283	692	26.340	13.0	12.5	1,325	171.0
40	1,270	686	25.580	13.0	12.0	1,301	158.5
30	1,252	680	24.400	12.0	11.0	1,200	146.3
20	1,235	670	23.700	11.0	10.0	1,200	134.3
10	1,209	659	22.710	10.0	9.0	1,100	118.5
0	1,073	613	19.150	7.0	6.0	800	59.5

TEN-YEAR-OLD GIRLS.

[Number of cases, 369.]

100	1,577	806	58.225	32.0	31.0	2,150	607.6
90	1,411	750	34.700	19.5	18.0	1,775	272.5
80	1,382	735	32.150	17.0	16.0	1,650	246.5
70	1,359	724	31.200	16.0	15.0	1,550	220.5
60	1,342	717	29.750	15.5	14.5	1,500	204.7
50	1,326	710	28.665	15.0	14.0	1,450	187.5
40	1,307	703	27.775	14.0	13.0	1,400	173.4
30	1,295	695	26.550	13.0	12.0	1,325	160.0
20	1,279	690	25.550	12.0	11.0	1,300	149.6
10	1,248	673	24.000	11.0	10.0	1,200	132.0
0	1,157	630	19.300	8.0	6.0	800	49.8

TABLE V.—*Percentiles*—Continued

ELEVEN-YEAR-OLD GIRLS.

[Number of cases, 341.]

Per cent.	Height, standing.	Height, sitting.	Weight.	Grip of right hand.
	Mm.	*Mm.*	*Kilos.*	*Kilos.*
100	1,576	855	55.630	27.0
90	1,487	784	38.825	21.5
80	1,443	763	36.290	20.0
70	1,420	753	34.566	19.0
60	1,405	745	32.560	18.0
50	1,388	737	31.300	17.0
40	1,367	730	30.350	16.0
30	1,349	718	29.287	15.0
20	1,329	709	28.300	14.0
10	1,297	695	26.625	12.0
0	1,172	646	21.000	8.0

TWELVE-YEAR-OLD GIRLS.

[Number of cases, 388.]

100	1,654	866	79.000	34.5
90	1,539	814	45.150	25.0
80	1,511	800	41.925	23.0
70	1,492	787	40.000	21.0
60	1,474	777	38.050	20.0
50	1,450	765	36.300	19.0
40	1,431	757	34.750	18.0
30	1,413	746	32.775	17.0
20	1,388	735	31.200	16.0
10	1,361	715	29.500	14.75
0	1,216	662	21.450	10.0

THIRTEEN-YEAR-OLD GIRLS.

[Number of cases, 387.]

100	1,718	912	78.000	45.0
90	1,602	849	51.500	30.0
80	1,578	832	47.650	27.0
70	1,558	824	45.000	25.0
60	1,540	812	42.950	23.5
50	1,519	798	41.000	22.0
40	1,498	788	39.200	21.0
30	1,479	777	37.200	20.0
20	1,448	764	35.500	18.5
10	1,413	746	32.800	17.0
0	1,300	683	24.400	10.0

FOURTEEN-YEAR-OLD GIRLS.

[Number of cases, 425.]

100	1,714	915	74.125	38.0
90	1,640	870	55.660	32.0
80	1,617	856	52.000	30.0
70	1,596	845	49.735	28.0
60	1,581	837	48.125	27.0
50	1,565	832	46.300	25.0
40	1,551	823	44.800	24.0
30	1,530	814	43.050	22.0
20	1,508	800	40.700	21.0
10	1,481	779	37.675	19.0
0	1,250	681	29.225	14.0

TABLE V.—*Percentiles*—Continued.

FIFTEEN-YEAR-OLD GIRLS.

[Number of cases, 448.]

Per cent.	Height, standing.	Height, sitting.	Weight.	Grip of right hand.	Grip of left hand.	Vital capacity.	Work on ergograph.
	Mm.	*Mm.*	*Kilos.*	*Kilos.*	*Kilos.*	*Cc.*	*Kilo-cm.*
100	1,737	919	81.350	47.0	47.0	3,400	699.3
90	1,645	876	57.400	33.0	31.0	2,650	488.0
80	1,620	865	53.800	31.0	29.5	2,500	435.2
70	1,605	856	52.075	30.0	28.0	2,400	404.6
60	1,590	847	50.150	29.0	27.0	2,300	381.1
50	1,574	840	48.700	28.0	25.0	2,225	354.0
40	1,561	831	47.300	26.5	24.0	2,150	330.6
30	1,547	823	45.500	25.0	22.0	2,050	309.0
20	1,529	814	43.300	23.0	21.0	1,960	276.0
10	1,506	801	41.250	21.0	20.0	1,800	231.0
0	1,391	660	30.975	12.0	10.0	1,450	104.4

SIXTEEN-YEAR-OLD GIRLS.

[Number of cases, 427.]

100	1,785	946	91.775	48.0	47.0	3,500	796.0
90	1,663	889	60.415	35.0	33.0	2,725	512.1
80	1,636	876	56.540	33.0	31.0	2,600	467.4
70	1,622	866	54.525	31.0	29.0	2,500	428.7
60	1,604	859	52.790	30.0	28.0	2,400	400.6
50	1,593	850	51.150	29.0	27.0	2,300	374.6
40	1,580	845	49.375	28.0	26.0	2,200	344.1
30	1,560	837	47.630	26.75	25.0	2,100	316.2
20	1,546	827	46.160	25.0	23.0	2,000	287.2
10	1,516	813	43.685	23.0	21.5	1,900	233.8
0	1,365	643	33.900	18.0	15.0	1,350	61.2

SEVENTEEN-YEAR-OLD GIRLS.

[Number of cases, 413.]

100	1,790	915	75.600	45.0	42.0	3,500	649.8
90	1,668	890	59.735	37.0	33.25	2,825	520.3
80	1,644	879	56.660	34.0	31.5	2,600	459.0
70	1,624	871	54.410	32.5	30.0	2,500	418.0
60	1,610	860	52.290	31.0	29.0	2,425	397.2
50	1,598	852	50.960	30.0	27.5	2,350	377.4
40	1,582	844	49.460	29.0	26.0	2,250	338.2
30	1,568	837	48.365	27.5	25.0	2,150	310.0
20	1,549	830	46.460	25.5	23.0	2,050	268.0
10	1,523	821	44.100	24.0	21.5	1,900	229.6
0	1,438	777	34.200	14.0	12.5	1,250	156.0

EIGHTEEN-YEAR-OLD GIRLS.

[Number of cases, 313.]

100	1,771	937	82.150	48.0	47.0	3,675	678.3
90	1,676	892	59.800	38.0	34.0	2,900	508.6
80	1,649	876	57.075	35.0	32.0	2,700	464.8
70	1,628	869	55.200	34.0	31.0	2,600	432.2
60	1,612	861	53.180	32.0	30.0	2,500	401.3
50	1,600	856	52.050	31.0	29.0	2,425	378.0
40	1,589	849	50.060	30.0	27.5	2,400	356.9
30	1,572	842	49.400	29.0	26.0	2,300	329.6
20	1,554	833	48.100	27.0	25.0	2,150	292.1
10	1,527	825	46.100	25.0	23.0	2,025	242.1
0	1,385	713	35.075	17.0	16.0	1,550	81.6

TABLE V.—*Percentiles*—Continued.

NINETEEN-YEAR-OLD GIRLS.

[Number of cases, 241.]

Per cent.	Height, standing.	Height, sitting.	Weight.	Grip of right hand.	Grip of left hand.	Vital capacity.
	Mm.	*Mm.*	*Kilos.*	*Kilos.*	*Kilos.*	*Cc.*
100	1,731	940	88.650	52.0	48.5	3,700
90	1,681	891	61.392	39.0	36 0	3,000
80	1,652	877	57.730	37.0	34.0	2,800
70	1,635	869	55.785	35.0	32.0	2,700
60	1,617	859	54.150	34.0	31.0	2,600
50	1,597	853	52.137	32.0	30.0	2,500
40	1,585	848	50.655	31.0	28.0	2,400
30	1,568	839	49.400	30.0	27.0	2,300
20	1,545	831	47.200	29.0	26.0	2,200
10	1,519	820	45.050	26.5	24.0	2,025
0	1,418	758	33.800	20.0	20.0	1,700

TWENTY-YEAR-OLD GIRLS.

[Number of cases, 175.]

100	1,778	953	76.850	44.0	46.0	3,600
90	1,674	895	62.025	38.0	37.0	2,900
80	1,650	882	58.000	36.0	34.0	2,800
70	1,628	872	56.000	35.0	32.0	2,700
60	1,621	865	54.500	34.0	31.0	2,600
50	1,609	858	53.000	33.0	30.0	2,500
40	1,597	851	50.900	32.0	30.0	2,500
30	1,585	845	49.300	31.0	28.0	2,400
20	1,562	838	47.600	30.0	27.0	2,300
10	1,540	822	45.812	28.0	25.0	2,200
0	1,328	697	39.000	18.0	19.0	1,300

FEMALE TEACHERS, 21 YEARS AND OVER.

[Number of cases, 223.]

100	1 787	931	101.100	47.0	42.0	3,500
90	677	892	63.000	39.0	36.0	3,100
80	655	882	58.720	37.0	35.0	2,900
70	635	876	56.855	35.0	32.0	2,775
60	1,625	868	54.775	31.0	31.0	2,700
50	1,607	861	53.688	33.0	30.0	2,600
40	1,592	854	51.860	32.0	29.0	2,500
30	1,576	847	49.980	31.0	28.0	2,400
20	1,560	834	48.380	30.0	27 0	2,300
10	1,530	823	46.400	28.0	25.0	2,200
0	1,474	797	39.000	22.0	20.0	1,650

School standing of the different percentile groups.—The child is a very complex being. Many factors contribute to the development of his school efficiency. Often only by considering a factor in reference to a large number of children can it be determined whether it is favorable or unfavorable to a child's school advancement. In the report of last year we were enabled to say that the evolutionary ideal child stood somewhere above the average in each measurement, and later to demonstrate that the more advanced pupils stood higher in the physical measurements than the backward ones. By taking the average number of school grades made by the several percentile groups of a given age we are enabled to compare the school efficiency of these groups. In order to present this matter on a broad basis, and to reduce it to a form sufficiently condensed to show at once the relation of school standing to physical condition abstractly, and dissociated from age and sex, we have proceeded as follows:

1. The cards representing the individual pupils from 8 to 16 inclusive (irrespective of sex) were first classified into the several ages by years.

2. The cards were then arranged separately for each year of age, with reference to stature, and each year's group divided into its ten percentile groups. Then the average grades of all the pupils in each of these percentile groups were determined. Then the average grades of all the pupils in each of the same percentiles of each age were added together, and this sum divided by 9, the number of ages considered, to determine the average number of grades made by each of the several percentile stature groups. The results thus obtained are given in the first column of Table VI.

3. The same process was repeated for each of the several measurements taken, and the results so obtained are given in the several columns of Table VI under their appropriate headings. In this way it is thought that the relationship of physical condition to mental capacity, as shown by school standing, has been shown completely divested of the influence of age and sex. The total number of pupils involved in this compilation is 5,768.

It will be seen from Table VI that the 90–100 per cent group has made on the average one more school grade, or a year's work, than has the 0–10 per cent group. If we take the average number of grades made by the very tallest pupils, the 100 percentiles, and compare this with the average made by the very shortest pupils, –0 percentiles, for each age, we will find that the tallest have made on the average 6.44 grades while the shortest have made 4.50 grades.

Table VI shows that this greater school efficiency of those physically superior holds good also for height sitting, weight, strength, endurance, and vital capacity, although not to the same degree in each. Part of this gain might possibly be explained on the supposition that those physically superior may have had better health and so have lost less time from school on account of illness than have the smaller and weaker ones, and so in part this higher standing of the larger pupils might be due purely to their physical superiority and not to their superior mental ability. On such a basis it might be easy to explain why certain smaller pupils are below grade, but such an explanation would hardly be so plausible in accounting for the fact that so many of the best physical specimens are above grade. Actual tests of the memory power show that the larger and stronger pupils are superior in native force of memory to the smaller and weaker. The true explanation will probably be found in the fact that those conditions which bring about large growth are favorable to the perfect formation and ideal balance of the brain and vital organs.

TABLE VI.—*School standing of the different percentile groups, showing the average number of grades made by the pupils coming under the various percentile groups for the different measurements.*

Percentile groups.	Net height.	Height, sitting.	Weight.	Grip of right hand.	Grip of left hand.	Vital capacity.	Work on ergograph.
100	6.44	6.69	6.60	6.21	6.24	6.55	6.44
90-100	6.36	6.07	6.26	6.09	6.09	6.29	6.00
80-90	6.04	6.07	6.00	6.03	5.97	6.03	5.96
70-80	5.98	5.98	5.89	5.91	5.91	5.96	5.80
60-70	5.98	5.85	5.86	5.87	5.89	5.93	5.88
50-60	5.88	5.80	5.77	5.87	5.79	5.81	5.83
40-50	5.80	5.75	5.77	5.72	5.74	5.79	5.85
30-40	5.65	5.73	5.72	5.64	5.73	5.76	5.76
20-30	5.56	5.65	5.71	5.62	5.67	5.67	5.74
10-20	5.55	5.51	5.55	5.59	5.51	5.59	5.65
0-10	5.29	5.43	5.38	5.43	5.49	5.36	5.56
0	4.50	4.70	4.66	5.12	5.11	4.85	4.72

MEMORY INVESTIGATION.

An investigation of some of the phenomena of memory was undertaken with two special objects: First, to establish norms for use in the examination of special cases

second, to gain light on the teaching of spelling. This second practical pedagogical problem was undertaken at the request of Superintendent Cooley. It is hoped that later on added data will enable us to make this report more complete. The scope of the work can best be seen from the following copy of the card on which the data were recorded:

[Form C. S. and P. I. No. 5.]

No. ——.

[BOARD OF EDUCATION, CITY OF CHICAGO,
EDUCATIONAL DEPARTMENT, ROOM 1200 SCHILLER BUILDING.

Name —— ——.
Grade ——. Number of weeks in this grade ——.
School ——. Room No. ——.
Teacher —— ——.

Date of birth: Year ——; month ——; day ——.
Place of birth —— ——.
Place of birth of father —— ——.
Place of birth of mother —— ——.
School standing —— ——.
Attention ——.
Memory ——.
Judgment ——.
Best work is in —— ——.
Poorest work is in —— ——.
Deportment ——.
How taught spelling ——.

Date						
Age						
Visual acuity:						
Right						
Left						
Acuteness of hearing:						
Right						
Left						
Motor ability:						
Right						
Left						
Memory-span test:						
Auditory memory						
Visual memory						
Audio-visual						
Audio-visual articulatory						
Audio-visual hand motor						
Spelling test:						
Auditory memory						
Visual memory						

The data to be recorded upon the upper part of the card were furnished in part by the pupil himself and in part by his teacher. Careful check tests were made on sight, hearing, and motor ability. Later, measurements were taken of height, height sitting, weight, strength of grip of the right and the left hand, and vital capacity.

Method.—For the purpose of investigating the native power of immediate sense memory of the children of different ages, memory-span tests were made in the following manner: Figures were arranged in series of different lengths of from four to eight digits each, only the nine significant digits being used. These series were printed in very large type on cards. A set constituting a test consisted of ten series, two series of four digits, two of five each, two of six, two of seven, and two of eight. The following is a specimen set of the series used in a test:

5 1 6 2	2 9 6 8 5
6 8 4 7 3 5	8 6 3 7 1 9
7 4 2 8 3 5 8 1	4 7 9 2 1 8 3
6 3 9 2 7	9 3 2 4
3 9 1 5 8 4 6	2 9 5 8 4 7 6 3

In order that the matter might be as homogeneous a mass of material as possible, an attempt was made to avoid all previously established associations. To this end

care was taken that in no case should two digits come in their natural order, as 3, 4, nor were they in any case arranged in their reverse order, as 8, 7. Series representing familiar dates were avoided. A sufficient number of series were thus produced, so that no set was presented twice to the same pupils.

The tests were made on all the pupils of a room at once by having the pupils reproduce the series on specially prepared blanks. These papers were collected and carefully graded. The errors were checked, and the percentage correctly recorded constituted the grade for that test. Seven tests were taken during the day, an hour intervening between the tests. The average made by each pupil in these seven tests constituted his final grade. The compilations include 25,000 individual tests of ten series each.

The series of four digits proved to be easy enough for those with the poorest memory, and the series of eight digits was difficult enough for all except the brightest pupils of the higest grades. In the higher grades were some pupils who probably could have remembered a longer span than eight had such a series been given them in the test; so the final percentages made in the upper grades do not show the full memory power as compared with those in the lower grades. On the other hand, the amount of attention required for writing the figures was greater with the younger pupils, and on this account the percentages made by them probably fall short of showing their full memory power.

It will be seen that in this investigation the attempt has been made to test the native memory power of the child rather than his previous acquirements and school training, as is done in the ordinary examinations, which test knowledge primarily and power only incidentally.

Method in auditory memory.—In order to test the auditory memory a series of digits, as 6, 8, 5, 3, was read to the pupils at a uniform rate of speed and a degree of loudness that was clearly perceptible by all. In the reading care was taken to avoid all rhythm. After a lapse of about five seconds the child was allowed to write this series. The reading was regulated by a metronome beating ninety times a minute. The ten series constituting a set were so arranged that the child could not anticipate the number of digits constituting the series about to be read; nevertheless, a series was given first which would be within the memory span of nearly all the pupils, because it was believed that by using one of the shorter series at first the children would be encouraged, whereas if a span beyond their power to reproduce was given first, some might lose heart and so not put forth their most intense power of attention.

Method in visual memory.—In testing visual memory, the card on which the series was printed, after the usual warning, was held before the pupils the same length of time that would have been consumed in reading the series in the auditory tests, namely, two-thirds of a second for each digit composing the series. The type used in printing the card was of such a size that it could be read by the normal eye at a far greater distance than that actually required of any pupil, but at the same time opportunity was given to anyone who experienced difficulty in seeing the figures to change his seat. The figures of a series were not exposed one at a time, and undoubtedly many of the children ran their eyes several times over the line of figures exposed, and so secured the advantage of repetition, which the child did not have in the auditory test. While it would have been easy to have arranged a shutter so as to expose one figure at a time, it was not considered best to do so, as this opportunity for repetition is a natural advantage which one usually has in learning through the eye. While a more rapid rate might be used as far as auditory and visual memory are concerned, and still allow time for clear and distinct enunciation, yet the longer period was selected in order to allow sufficient time for the audio-visual-articulatory and the audio-visual-hand-motor tests. It is believed that the slow rate was slightly to the advantage of the visual memory in comparison with the auditory memory.

Method in audio-visual memory.—In the audio-visual test a card containing the series was exposed to view just as in the visual test, and at the same time the digits were repeated aloud by the experimenter at the rate used in the auditory test. Thus a simultaneous appeal was made to the sight and hearing of the pupils.

Method in audio-visual-articulatory memory.—In the test of the audio-visual-articulatory memory the impression was produced by making a simultaneous appeal to hearing, sight, and the muscle sense by having the series read aloud by the pupils when the card containing the digits was presented, the concert reading being timed by the metronome.

Method in audio-visual-hand-motor memory.—While the series was dictated at the established rate, the pupils wrote the digits on scrap paper and at the close of the series the paper was turned face downward and the pupils reproduced the series from memory upon the test paper, thus testing the result of a simultaneous appeal to hearing, sight, and the sensations from the muscles used in writing.

No complete separation of the different sense memories.—While the attempt was made to test the immediate sense memory from the exercise of sight, hearing, and the combined action of these senses, with each other and with the muscle sense awakened by activity in the hand and vocal organs, yet these elements could not be tested as isolated memories. It must be remembered that the muscle sense enters into our activities of both sight and hearing in the reception of the impression, because both the eye and ear require the action of muscles for their adjustment. In testing visual memory, it was noted that many children, in spite of all admonitions to the contrary, moved their lips and throats, thus indicating that articulatory impressions were awakened. Even in the auditory tests slight lip movements were noted in some pupils. In the recording of the figures of any series the impressions, of course, had to be translated into visual and motor terms, so that probably the sight, hearing, and motor tracts and centers were active during all the tests; yet nevertheless it is believed that the predominating elements are the ones named in each test.

Fatigue.—It is well known that extreme fatigue lowers the memory power. The tests were made at the different periods of the day with the thought of ascertaining whether any trace of the course of power during the day, as established by the ergograph, would appear from these memory tests, but it seems that the children on the whole gained more through practice than they lost through fatigue. There is but a slight falling away just previous to the noon hour and again in the afternoon just before the close of school.

The development of auditory and visual memory power.—Table IX shows the development of the auditory and visual memory. While there are a number of irregularities which are due simply to the paucity of numbers, yet certain facts seem to be thoroughly established. The auditory memory develops rapidly up to about 14 years of age, and but slowly after this period. The visual memory seems to develop rapidly up to 15 or 16 years of age. This period of rapid development of visual memory lasts a year or two longer than the period of rapid development of auditory memory. It will be noted that in the early life of the child the auditory memory is stronger than the visual memory; after about nine years of age the visual memory of most of the children becomes stronger than the auditory, and continues to develop more rapidly than the auditory memory throughout school life. Yet even in the high school there still remains a small proportion of the pupils whose hearing memory is the stronger. This small percentage of persistently ear-minded individuals, like the small per cent of left-handed people, seems to be a special provision of nature to show to teachers that children are not alike mentally or physically and are not all to be subjected to the same treatment; that children are not so plastic as educators seem to think them to be, and that school training, important as it is in the development of human power, is often overestimated when compared with the great factors—heredity and nutrition.

tory or the visual, is not quite so strong as the audio-visual or the audio-visual-articulatory. It would seem that the divided attention required in writing the digits when dictated interferes slightly with their firm grasp in memory.

TABLE X.—*Combined sense memories.*

Age at last birthday.	Number tested.	Audio-visual.	Audio-visual-articulatory.	Audio-visual-hand-motor.
		Per cent.	*Per cent.*	*Per cent.*
7 years	19	43.8	47.4	.....
8 years	60	50.2	53.0	.....
9 years	99	56.1	53.3	55.9
10 years	93	57.1	62.8	63.3
11 years	91	70.9	74.6	68.8
12 years	92	71.8	76.9	71.7
13 years	97	82.9	84.8	79.3
14 years	80	82.6	86.0	81.1
15 years	45	80.7	81.4	78.9
16 years	18	86.9	88.4	82.4

Memory span.—In order to have a simple standard for determining whether an individual is equal to, above, or below others of his age in memory power, the memory span for each age from 8 to 19 years, inclusive, has been determined in the following manner: If a child could remember a series of a given length so as to write it perfectly at least one-half the time, it was considered within his memory span. In determining the average memory span, the first four trials of each pupil on a series of a given length were taken as a basis for computation. If a majority of the pupils of a given age could reproduce correctly series of a given length in at least one-half of the trials, it was considered within the memory span for that age. For example, of the 12-year-old pupils, 47 out of 93 reproduced correctly two or more of the first four visual tests given them on a series of 7 digits, so 7 is within the visual-memory span for the 12-year-olds. In this manner the following table of memory span has been established:

TABLE XI.—*Memory span.*

Age.	Auditory memory.	Visual memory.	Age.	Auditory memory.	Visual memory.
	Digits.	*Digits.*		*Digits.*	*Digits.*
7 years	5	5	14 years	6	7
8 years	5	5	15 years	6	7
9 years	5	6	16 years	6	7
10 years	6	6	17 years	7	8
11 years	6	6	18 years	6	7
12 years	6	7	19 years	7	8
13 years	6	7			

Repetition.—To test the effect of repetition a schoolroom was selected containing 38 pupils, averaging 10 years and 27 days old. The first test given was the usual auditory test. On this the pupils made an average of 47 per cent. In the second test each series was read to the pupils and then immediately reread at the same rate. On this test an average of 55 per cent was made. In the next test each series was read three times, the pupils making an average of 59 per cent.

Memory power and school standing.—The 93 12-year-old pupils found in the Ogden School were scattered throughout the grades, from the third to the eighth, inclusive. From Table XII it will appear that those 12-year-old pupils found in the higher grades have stronger memory power than those of the same age in the lower grades. Not only is this true, but we find that the 12-year-old pupils of the eighth grade, who are the youngest pupils of this grade, are decidedly superior in memory power to the average eighth-grade pupils, thus indicating that their superior native memory

power has been a potent factor in putting them two years ahead of their normal grade.

To show how decidedly this parallelism between superior school standing and memory power holds good throughout school life, the pupils have been divided into two groups, one representing those at or above the normal grade for that age, the other those below the normal grade for that year representing the backward pupils. The normal grade for that age was found by subtracting six from that age; thus, a pupil of twelve years would be found normally in the sixth grade; if in the fifth or lower grade he would be classed as below grade; if in the sixth, seventh, or eighth grade he would be classed as above grade. The result of this compilation appears in Table XIII.

TABLE XII.—*Memory power of 12-year-old pupils, by grades.*

	Grades.					
	Third.	Fourth.	Fifth.	Sixth.	Seventh.	Eighth.
Number tested	7	11	30	25	15	5
Auditory.....per cent..	43.3	50.8	54.7	61.9	60.3	71.8
Visual.....per cent..	56.7	63.8	71.8	73	76.9	92.8

TABLE XIII.—*Memory and school standing.*

Age.	Number tested.	Auditory.		Visual.	
		Average standing of pupils at and above grade.	Average standing of pupils below grade.	Average standing of pupils at and above grade.	Average standing of pupils below grade.
		Per cent.	*Per cent.*	*Per cent.*	*Per cent.*
9 years	99	47.8	39.7	50.3	41.9
10 years	88	54.4	42.7	61.6	46.2
11 years	91	59.0	48.6	69.4	58.3
12 years	92	62.6	52.2	76.7	66.0
13 years	110	70.4	64.3	80.7	72.3
14 years	116	68.9	62.6	87.6	74.9
15 years	94	68.9	62.1	80.9	75.0
16 years	75	70.1	65.8	83.3	78.8
17 years	56	67.5	62.7	87.8	81.2

Balance of sense memory.—Table IX shows that on the average the visual memory develops more rapidly than the auditory memory. It appears from Table XII that the more advanced 12-year-old pupils have visual memory stronger in proportion to the auditory memory than do the backward pupils of this age. If we take the pupils from 9 to 17 years of age we find that only 16 per cent of those at or above grade have the auditory memory stronger than the visual, while 21 per cent of those below grade have the auditory memory stronger.

Comparison of memory power and physical condition.—Table XIV gives a comparison of all those above the average with those below the average for their age in memory power in reference to the physical tests. It will be seen from this table that those who are higher in memory power are larger and better developed physically than those below the average in memory. This physical superiority is slight, yet the difference in memory power between those above the average and those below the average is but small, for most of the pupils are only slightly removed from the average in memory power. That those with superior memory power are larger and in a better physical condition, as shown by the physical tests, suggests that the immediate sense memory is dependent upon good brain formation and nutrition.

TABLE XIV.—*Comparison of memory power and physical condition.*

Physical measurements.	Auditory memory.		Visual memory.	
	Above the average.	Below the average.	Above the average.	Below the average.
Net height.....millimeters..	1,485	1,464	1,484	1,468
Height sitting.....do....	795	785	785	784
Weight.....kilograms..	40.706	39.793	40.561	39.435
Strength of right hand.....do....	23.07	22.29	22.65	22.23
Strength of left hand.....do....	21.41	20.77	20.97	20.69
Vital capacity.....cubic centimeters..	2,089	2,019	2,091	1,987
Motor ability of right hand.....taps..	176	174	180	169
Motor ability of left hand.....do....	148	146	155	144

Boys of the John Worthy School.—Tests in auditory and visual memory were made on the pupils of the John Worthy School [reformatory]. Nearly one-fourth of these pupils could not be tested after the manner in which the tests were made in the public schools, because the pupils were not far enough advanced in scholarship to write the figures which were read to them. Although on this account the averages are probably much higher than they otherwise would be, yet it will be noted from Table XV that the boys of the John Worthy School are lower in memory power than are the pupils of the other schools, and that this disparity increases with age.

TABLE XV.—*Memory power of the John Worthy boys.*

Age.	Auditory.				Visual.			
	Number tested.	Average.	Normal for this age.	Per cent John Worthy is of normal.	Number tested.	Average.	Normal for this age.	Per cent John Worthy is of normal.
		Per cent.				*Per cent.*		
9 years.....	1	38	45	84	1	53	47	113
10 years.....	6	48	49	89	6	58	55	105
11 years.....	21	42	55	76	21	56	65	86
12 years.....	33	48	56	86	33	65	72	90
13 years.....	49	49	68	72	49	66	77	86
14 years.....	65	48	66	73	65	60	81	74
15 years.....	53	53	66	80	53	72	78	91
16 years.....	13	61	67	91	13	78	81	96
17 years.....	5	41	66	62	5	56	84	67

Spelling test.—In order to determine how the power of auditory memory compares with visual memory when actually employed in learning to spell, tests were given in the following manner: Two lists of 70 words each were prepared, and each list divided into 7 sets of 10 words each. These words were believed by the principal and teachers to be in the speaking vocabulary of all the pupils. Seven tests of 10 words each were given during the day at intervals of one hour. Instead of allowing the pupils to write the word immediately after its presentation, as in the work with figures, the 10 words were presented one at a time and then were pronounced, to be written as in the ordinary spelling exercise.

The first day the 7 sets of the first list were given as auditory tests, and the next day the sets of the second list were used as visual tests. Of course it was impossible to make lists of words of exactly equal difficulty. To obviate this the tests were repeated one week later. The exercises were given as before, except that the words used as auditory were given as visual tests in the second trial, and vice versa. So each word was used twice—once in an auditory test and once in a visual test. On compiling the results we find an average standing of 64 per cent in the auditory tests and 73 per cent in the visual. The striking similarity in the comparative strength of auditory and visual memory, as shown in this spelling test and in the test of the

same pupils with figures, serves to strengthen the belief that many of the conclusions drawn from the memory tests are applicable to the learning of spelling.

Comparison of good and bad spelling.—Each teacher in the Ogden School furnished the names of the five poorest and the five best spellers of her room. This gave an opportunity to study the characteristics of good and bad spellers. While on the whole the good spellers have decidedly better memory power than the bad spellers, yet there are individuals among the poor spellers who are superior in memory power, and individuals among the best spellers whose memory power is scarcely up to the average of their age. While this native power of sense memory plays an important rôle, it is by no means the only factor in learning to spell.

It should be added, also, that while the number of sight and hearing defects is greater among the poor spellers, yet there are among the very best spellers pupils with marked sensory defects.

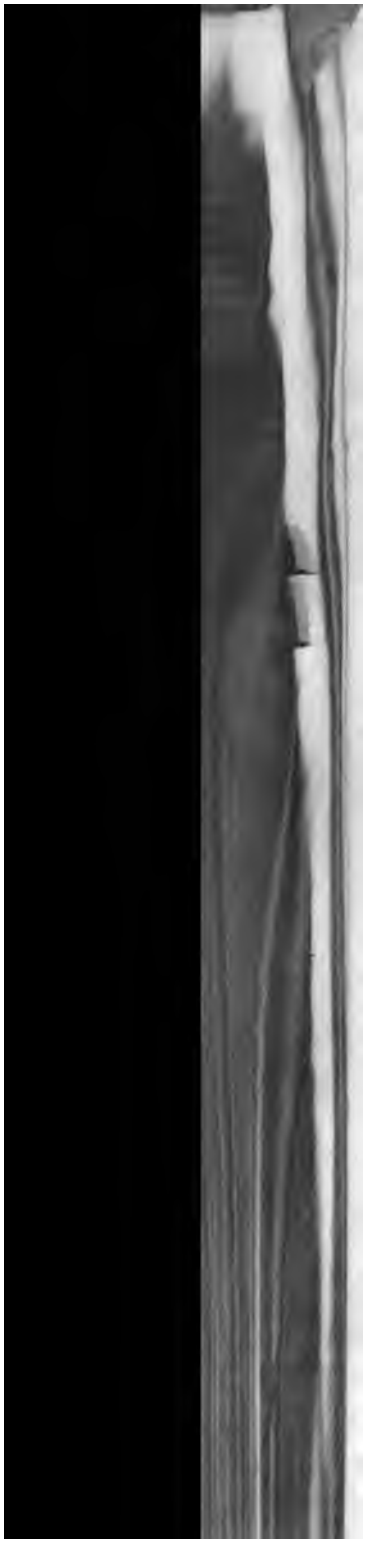
Some conclusions and suggestions.—1. In these tests of memory an attempt has been made to divest the matter to be memorized of as many associations as possible, and so to measure the native strength of the memory. The power thus measured is passive; it is blind; it attempts to take and give back without change, to return an echo of the sensations. It shows what the child can apprehend, not what he can comprehend. Good teaching attempts to make the mind active and alert, causing it to compare, associate, and classify. It is the province of the school to discipline this native power of memory; to bring forth skill where originally there is only strength. The teacher should aim to develop from the native sense memory an organized rational memory. It is said that English spelling is illogical, but this is true in part only, and the teacher should use every available opportunity to see that the child uses his rational memory instead of depending too largely on the native force of his sense memory.

2. Those with superior memory power being in superior physical condition, as shown by the anthropometric tests, clearly indicates that the immediate sense memory is dependent upon good brain formation and nutrition. The skillful and rational use of this memory power is dependent upon habitual use; hence on education and experience. All these factors are significant in learning to spell.

3. Where the matter memorized has been divested of associations, repetition is necessary for the securing of deep and lasting impressions. Wherever logical association is possible there can be a more efficacious method of study. In studying, the child should be habituated to depend upon comparing and classifying, rather than upon mere repetition. Children are so prone to depend upon blind repetition that they sometimes put forth as much effort in studying the words that they have long thoroughly known as they do upon unfamiliar words, and use as much energy in studying the parts of a word that present no difficulty as they do upon the unknown portions. A wise direction of the child's energies would greatly shorten the time necessary for the mastery of English orthography.

4. While usually the better spellers are possessed of better memory power than are the poor spellers, yet there are bad spellers with a high development of memory. Superior memory may make the acquisition of spelling easy, yet it by no means removes the necessity for some intelligent application on the part of the pupil. While most good spellers tend toward the visual type, still there are both good and bad spellers of each type.

5. The fact that children have the ear memory stronger during the early years suggests at once that the teaching of spelling to the young will be effective if the ear is appealed to; that there is probably a place for oral spelling; that there should be some pronunciation of syllables with the spelling; that the words presented to the child at first should be, as far as possible, phonetic in their spelling, leaving the "more cruel and unusual" forms of English orthography to be learned in later years, when the eye memory has become stronger.



6. The investigation shows that there is no "memory school life when the memory is stronger than it is at an life, a period especially adapted for learning to spell. stages, there are undoubtedly periods of interest that ar child's learning to spell; times when, through the influ ers, the child is aroused from indifference or from a fe part of life to a recognition that it is important.

7. It has been pointed out that during early school the stronger, and later that the visual memory is stro school life the audio-visual memory is stronger than e that is, a simultaneous appeal to both sight and hearing usable image than is brought about by an appeal to e is very far-reaching in its application to teaching. memory, in which the impression is produced by an and the muscle sense, is even stronger than the audio- this that the more senses we can appeal to the deeper fact should be made use of in spelling drills.

8. The aim in teaching spelling should be to render use automatic, to have them so well known that in wri point of the pen, requiring but little thought as to thei large class of words of less frequent occurrence which reflection. For the more unusual words the individua habit so firmly fixed that he will conscientiously look write if in doubt about its correct spelling. The spelli matic through practice in writing them. Though the well be made through other combinations of sense mem of the spelling of most words should be through memory.

9. The per cent of pupils having sight and hearing poor spellers than among the good spellers; yet there ar defects among the very best spellers. While these sen learning to spell, still they may be overcome through pupils who have good memory power.

10. Much that has been said here concerning the te with but slightly diminished force to instruction in curriculum.

CHAPTER XXVIII.

EDUCATION IN RUSSIA.

By E. Kovalevsky,

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Most of the educational institutions in Russia are under the direction of the ministry of public instruction, but there are many special schools which depend upon the other administrative departments, including a series of technical and commercial schools and a complete system of agricultural schools.

SUPERIOR TECHNICAL INSTITUTIONS.

The want of men with higher technical education is very sensibly felt in Russia, and as a consequence the influx of secondary students wishing to enter the special higher schools is increasing with every year, even in greater numbers than these schools can receive. In the year 1898 7,000 applications were presented in the different institutes, while only 2,000 students could be admitted. The Government shows its disposition to help the progress of technical instruction. Since the year 1895 five large, new, higher establishments (three polytechnical schools in St. Petersburg, Warsaw, and Kief, a technological institute in Tomsk, and an engineering school in Moscow) have been founded. Taking in consideration the importance that chemistry has lately acquired in Russian industry the State has constructed new laboratories in the existing schools (St. Petersburg Technological Institute and Riga Polytechnical School) in the hope of increasing the number of the students of the chemistry departments, who till now formed only 26 per cent of all students of technology.

The expenditures of the ministry of public instruction alone for the support of higher technical education amount to a million and a half of rubles. The ministry of finance assigned seven millions for the construction of the last polytechnical school.

There are at present (1902) 13 superior technical institutions in Russia, with 8,000 students, viz: Four technological institutes, 4 polytechnical schools, 2 engineering schools, 1 school of civil engineering, 1 of mining, and 1 of electrotechnics.

The aim of all these establishments is to train engineers for the service of the State, competent to act as foremen in factories, in industrial enterprises, and on public works.

The students are accepted graduates of secondary schools, selected by competitive examination. They attend the institutes for five years, the last year including a practical course. Besides their theoretical studies, they are sent every summer to practical work in factories and on railroads.

The list of the 13 higher schools is as follows:

1. The Technological School in St. Petersburg, one of the oldest technical schools, opened in 1828. There are two divisions, the mechanical and the chemical, attended by 1,109 students. The State assigns for it yearly 275,628 rubles.

2. The Technological Institute in Kharkof, dating from 1885. It has 685 students and receives yearly 341,544 rubles from the State.

3. The Moscow Imperial Technical High School, with 865 students, organized like the two preceding. The yearly income of 269,500 rubles includes 208,000 given by the State.

4. The Technological Institute in Tomsk (Siberia), founded in 1900. This school has accommodations for 220 students.

5. The Polytechnical School in St. Petersburg, ready to be opened next autumn (1903), and designed for 1,800 students, with the 4 following departments: Economy, shipbuilding, metallurgy, and electrotechnics.

6. The Polytechnical Institute in Riga, having 6 divisions, viz: Chemistry, mechanics, agronomy, commercial sciences, architecture, and engineering, and attended by 1,446 students. This school is chiefly supported by the city of Riga.

7. The Polytechnical Institute in Kief, consisting of 4 divisions, viz: Mechanics, engineering, agronomy, and chemistry. It has 710 students.

8. The Polytechnical Institute in Warsaw, with only 3 divisions, while a fourth division of mining is to be founded next year. It has 644 students, and was chiefly constructed from the means provided by the city and the local Polish societies, which presented during the visit of the Emperor to Warsaw a million for this purpose in memory of his visit.

9. The Institute of Railway Engineers in St. Petersburg, containing 886 students.

10. The Engineering School in Moscow, attended by 300 students.

11. The Institute of Civil Engineers is supported by the sum of 82,000 rubles, yearly appropriated by the State. The number of the students is 350.

12. The Institute of Mining in St. Petersburg, which is very ancient. It was founded about a century ago, in 1795, in the reign of Catherine II; 480 students are studying there; 156,205 rubles are appropriated yearly for this school. The institute is celebrated for its splendid mineral collections.

13. The Electro-Technical Institute, the aim of which is to prepare engineers for the State's telegraphs and telephones. The maximum number of students is 300.

It will be of interest to compare Russia with other European countries as regards higher technical education. According to the statistical tables for the year 1898–99 exhibited in the Paris exhibition, the number of higher technical students in Germany was 15,000, in Russia 8,000, in Austria 3,500, in France 1,500, in Italy and Switzerland 1,200, while in Spain and Denmark the number did not exceed 500.

OTHER TECHNICAL AND SPECIAL SCHOOLS.

Intermediate and elementary technical and industrial education in Russia is supervised by a special division of the ministry of public instruction, formed in the year 1883. To this division was given the work of drawing up the general educational programme which received the imperial sanction in 1888.

All the boys' schools of middle and lower grades directed by the division of industrial schools are divided, according to the object they have in view, into five groups.

1. The technical schools with the course of the middle grade educational establishments. Their aim is to provide their pupils with a general education, and also with that amount of technical education that is necessary to qualify them for positions as assistant engineers or for acting as foremen in smaller industrial enterprises.

These schools consist either (1) of 4 special classes where students are received after a five-years' course in a secondary "Realschule;" or (2) a five-years' general course is attached to the last 4 technical classes; or (3) the 7 classes of the middle technical school contain both the general and the special subjects.

The number of such schools is 20; the most noteworthy among them are the school of Krasnoonfinsk (furnishing teachers for the mine works), the Komnessorof School

in Moscow, and the industrial school in Lodz, preparing textile and weaving specialists.

2. The lower technical schools, in which such subjects of general education are taught as are found in the programmes of the higher elementary schools; their aim is to prepare master workmen for the factories, specialists in the ruder kind of mechanical work, machinists, and draftsmen. Their number is also 20.

3. The so-called artisan schools, 22 of higher and 55 of lower grade, with a programme of general subjects resembling that of the elementary schools. They prepare master workmen in the domestic industries, and give instruction in carpentering, carving, blacksmithing, tailoring, shoemaking, bookbinding, etc.

The most noteworthy for their specialties are (1) the artisan schools of leather fabrication in Bogorodsk and Bazarmy Karkoulac (the objects exhibited by the latter were sent after the Paris exhibition to England in exchange for a collection from a bootmaking school); (2) the school of toy making in Totma, and (3) the school of bonnet making in Samara.

4. The 67 industrial schools with different specialties in their programmes, to which may be added the schools for adults, such as the schools of printing, the evening classes of the Imperial Technical Society, etc.

5. The newly created 18 schools for apprentices, the aim of which is to replace the hard years of apprenticeship in a workshop under the direction of an ignorant master by a course giving some general education and the theoretical knowledge necessary for a workman besides his practice. Boys of 11 to 13 years attend these schools before entering a factory workshop under the oversight of an experienced master. Most of these schools are founded near large factories for their workmen.

The number of pupils attending these 209 schools was, in 1900, nearly 13,000. The expenditures of the year amount to nearly 2,000,000 rubles, of which the State supplies 34.9 per cent, the local institutions 21 per cent, the income of funds 16.3 per cent, fees for teaching 12.3 per cent, the selling of the objects made in the workshops by the pupils 4.5 per cent, while the remaining 11.2 per cent proceeds from different sources.

During the years 1888 to 1898, while the division of industrial schools proceeded with its work, the yearly income of the middle and lower grade technical schools increased from 400,000 rubles to nearly 2,000,000, thanks to the constant gifts presented for this purpose by private individuals, townships, and associations. Among these benefactions may be noted that of the celebrated railway contractor Chigof, who left a fund of 5,000,000 rubles for the construction of 5 industrial schools in the province of Kostrome, where he was born. Mr. N. Kareznikof left 3,000,000 rubles for a technical boarding school in Irkutsk. The councilor of commerce, Mr. Komarof, left 3,500,000 rubles for an artisan school in Rykinsk; the merchant Pastouhof, 380,000 rubles. The municipality of Moscow gave 850,000, the magistrate of Lodz 200,000, the city of Odessa 1,000,000, and a series of other municipalities more than 100,000 rubles each, for the construction of technical schools.

The intention of the ministry of public instruction is to open every year two or three middle grade technical schools, five or six artisan schools, and ten or eleven schools of the lowest grade. The expense will amount to the sum of 1,500,000 rubles yearly; but only by this course can a satisfactory result be obtained, owing to the evident need in Russia of men with special education.

In the year 1902 a series of artisan schools are to be constructed in the localities where some domestic (or "kush") industry is particularly developed. In the Crimea a coopers' school will be necessary for the vine dressers, in Kimry (a village where leather is fabricated) a shoemaking school, in the agricultural provinces schools of agricultural machinery, etc.

The professional schools for girls are less numerous; their programmes as well as their incomes are various. There were in 1899-1900 48 professional girls' schools, 30 professional classes and workshops, 15 cookery schools, 105 needlework classes

added to schools for general education, and courses preparing teachers of needlework in St. Petersburg. Most of these institutions are supported by private gifts, the State furnishing them only 10,000 rubles yearly.

A private "society for encouraging the professional education of women" formerly played the leading part in matters concerning the programmes and regulations of such schools. But in the year 1900 the ministry of public instruction formed in the scientific committee a division of professional education for women, the office of which is to elaborate and publish new programmes and rules, and to discuss all special questions concerning girls' professional schools.

To the group of technical schools belong the intermediate and lower institutions controlled by the ministry of railroads. They train the personnel serving on the rail and river roads, and are of three classes: (1) One middle-graded, the so-called school of railway conductors, preparing assistant engineers; (2) 34 lower technical railway schools; (3) three so-called river schools. The two last groups train employees for subordinate service on the railway and river central systems.

The 6 mining schools also belong to the group of technical schools, as well as the 20 rural workshops under the direction of the ministry of finance; the aim of these latter is to prepare workmen to take care of agricultural machines and to make the simplest instruments.

COMMERCIAL SCHOOLS.

The ministry of finance, however, manifests a far greater interest in the supervision and construction of the commercial educational establishments, the development of which is quite recent. In 1894 there were only 9 commercial schools, with 2,500 students; their present number is 105, attended by 18,400 students.

The commercial schools are divided into three classes:

1. The intermediate commercial institutions, 42 in number, with a general course of seven years, a secondary school, or only a special course of three years. Their aim is to prepare agents for large commercial or industrial enterprises.

2. The so-called trade schools, with a course of one or of three years, preparing employees of lower grade for the same enterprises. There are 30 trade schools founded by private persons or by the State.

3. The 33 commercial courses and classes, the object of which is to impart knowledge in commercial sciences to persons of all ages, from 12 years upward, already employed in industrial or commercial institutions, or having the intention to enter such.

The income of commercial schools has been almost exclusively derived from private or local sources, such as local institutions, associations, and private gifts. (The State gives only 25,000 rubles yearly.) The yearly expenditures are 2,382,000 rubles, a middle-grade school, attended on an average by 380 pupils, costing nearly 35,000 rubles, while the minimum cost of a class in the commercial sciences, with 15 to 20 students, is 300 rubles a year. Nearly 32 "real" secondary schools, commercial sections, with a course of three years, have been founded.

Departments of higher commercial education exist in the Riga and St. Petersburg polytechnical schools and in the Oriental Institute in Vladivostok. The commercial education of women is still in private hands. We can only mention two girls' public commercial schools, in St. Petersburg (asylum of Demidoff) and in Odessa, but commercial courses and classes are, as a general rule, often for both sexes.

ART SCHOOLS.

A special type of professional schools, under the jurisdiction of the ministry of finance, is yet to be mentioned, viz, the schools of art and of art industry. Besides the Academy of Arts in St. Petersburg, a higher school of sculpture exists in Moscow. Four large schools of art industry form a second category: (1) The Central School of Drawing of Streglitz; (2) the School of Technical Drawing of Strogonoff in Moscow;

(3) a school conducted by the Imperial Society of Art Instruction; (4) one of the same of the Poet Gogol in Mirgorod. A degree lower are drawing schools in all large cities, and a series of evening drawing classes for artisans and workmen. In 1901 a school of industrial art is to be opened in Ekaterinburg in the Ural, with divisions for gold, silver, and stone industries.

AGRICULTURAL EDUCATION.

Agricultural education is of great importance in Russia, where the greater proportion of the population derives its living from agriculture. Nevertheless it was introduced only twenty years ago. Since then the number of schools has increased every year, and the ministry of agriculture, which has the direction of this branch of education, could present to the last Paris exhibition the most remarkable statistics, that speak for themselves:

Year.	Agricultural schools.	Students.	Expenditure.
			Rubles.
1879	14	1,292	435,980
1889	46	2,715	673,015
1899	133	5,992	2,076,499

All agricultural and forestry educational institutions, like the other technical ones, are of three grades. To the higher grade belong four of them, namely: (1) The New Alexandria higher agronomical and forestry institute (province of Lublin, Poland); (2) the agronomic institute in Moscow; (3) the forestry institute in St. Petersburg; (4) the higher courses of œnology near the Imperial Garden Nikitsky in the Crimea. Besides these, the two polytechnical institutes in Riga and Kief have agronomic departments. All high-grade agricultural schools are designed to give their students good, superior instruction in forestry and agronomy.

The middle-grade schools, which prepare young men theoretically and practically to be overseers of properties with regular rural economy, are 13 in number, with 1,599 students in them. All these schools have a general secondary course of six years, besides the agricultural sciences. Some prepare vinedressers, others sheep breeders, others again land surveyors. In Gorki, province of Mogilef, has been founded almost the best and the most noteworthy of the middle-grade schools, where, in an artisan section, boys are taught to take care of agricultural machines and to make the simplest parts of them. In order to prepare teachers for the middle-grade schools normal agricultural courses are added to the same school and to another middle-grade establishment (in Kharkof).

The schools of the lower grade may be subdivided into eight groups, according to the branches taught in them, as follows: (1) Eighty-two general agricultural lower schools; (2) 83 horticultural schools; (3) 15 dairy schools; (4) 1 school of sheep breeding; (5) 1 agricultural-artisan school; (6) 4 women's schools of rural economy and dairying; (7) 13 practical schools for gardeners; (8) 28 schools for foresters.

The general aim of all these schools, attended by nearly 4,000 students, is to spread among the rural population elementary knowledge of the agricultural sciences and to teach the peasants different trades and handicrafts useful in their life.

To complete the picture of the actual state of agricultural education in Russia, the measuring and land-surveying schools must be mentioned, viz, the Constantin Measuring Institute in Moscow, and the five intermediate land-surveying schools.

ELEMENTARY INSTRUCTION.

Before entering any of the preceding schools most of the boys, as a preparatory grade, pass through the village or city elementary school. This side of education, which exercises so much influence on the general welfare of a nation, is in Russia

SECONDARY EDUCATION.

Secondary education is open to both boys and girls of all social classes. The girls' gymnasiums and progymnasiums which have a complete secondary course—376 in number, according to the latest statistics—are often public secondary schools, with almost the same course as the masculine one except the ancient tongues. The course of study is seven years. To some of the gymnasiums an eighth normal class is added to prepare those wishing to embrace the teacher's career. For graduates of a gymnasium without an eighth class a pedagogical course is formed for the same end. Besides these schools, 346 of which are attached to the ministry of public instruction and 30 are directed by the Society of the Empress Maria, this society founded and is now supporting 32 secondary boarding schools for girls. To complete the number of secondary schools for girls we must add to the establishments mentioned above 69 secondary parochial schools, the general object of which is the education of the daughters of the orthodox clergy. These 477 secondary establishments were attended in 1899 by 129,000 girls.

The secondary schools for the general instruction of boys are on the point of being radically reformed in their programmes and methods. Till the year 1900 they were divided into (1) classical gymnasiums and progymnasiums and (2) "real schools." The former (191 gymnasiums and 53 progymnasiums) had a course of eight years preparing for the university, and based their educational system on the study of the classical tongues. The second type of schools (115 in number) consisted of 7 classes and prepared for all higher technical schools.

The expected reform of secondary education (recognized defective and unsatisfactory in Russia) was first made by the last minister of public instruction, Mr. Bogolepof, who assembled in 1899 a special commission to discuss the matter. But the final execution of the change will devolve upon the present minister, the general adjutant, Mr. Vannovsky, called to this responsible post by the memorable imperial decree of March 25, 1901, as follows:

> The experience of recent years has shown such important defects in our educational system that I believe it is time to begin without delay its radical examination and correction.
>
> Fully appreciating your experience as a statesman and your highly cultivated mind, I choose you as my companion in the work of renewing and reconstructing the Russian school.

INSTITUTIONS OF HIGHER EDUCATION.

It seems evident that not only the secondary system was meant by these last words, but that they also have in view the immediate reform of the organization of educational institutions of higher grade, namely, the universities.

There are 10 universities in Russia, in the towns of St. Petersburg, Moscow, Kief, Kharkof, Odessa, Warsaw, Kazan, Yurjef, Tomsk, and Helsingfors.

Each university is composed of four faculties, viz, history and philology, law, medicine, science and mathematics. The university of St. Petersburg forms an exception to this general rule, where, instead of the medical faculty, is the department of oriental tongues; also the university of Yurjef, where to the four usual faculties is added a theological one (preparing Protestant clergymen), and the university of Tomsk, which has only two faculties, those of law and medicine.

The admission of graduates of secondary classical schools takes place every autumn without special examination. The course of study is four years, after which a state examination is held for university graduates wishing to enter the Government service.

The interior organization is expected to be so thoroughly changed before the next semester that it is not considered desirable to give a description of it now.

Besides the 13 technical institutes, the 4 agricultural schools, and the 10 universities, there are 18 higher grade educational establishments in Russia, namely: two

special medical schools, the Imperial Military Medical Academy, in St. Petersburg and the Clinical Institute of the Grand Duchess Elena Pavlovna; 3 historic-philological institutes, in St. Petersburg and Niegine; 2 higher schools of oriental tongues in Moscow; the so-called Institute Lezaref; in St. Petersburg, 3 lyceums and 1 higher school of law; the Alexander Lyceum and the school of law, in St. Petersburg; the Lyceum Demidof, in Yaroslaf; the Nicolas Lyceum, in Moscow; 4 higher veterinary institutes, in Kharkof, Warsaw, Kazan, and Yurjef; 1 academy of arts, in St. Petersburg, and 3 higher establishments for women.

These last deserve especial attention, having been founded and being supported exclusively by private societies. The oldest of them, the Superior Courses for Women, in St. Petersburg, has, like the universities, a course of four years and two faculties, the historic-philological and the mathematical. Quite lately there was question of adding an agronomical section to these two. The number of women attending the courses is nearly 1,000, and the expenditure of the society supporting them is 144,000 rubles yearly.

The second institution, founded five years ago under similar conditions, is the Women's Medical Institute in St. Petersburg, with a five-years' course of study attended also by nearly 1,000 women students. The third school is the Higher Course in Moscow, to which next year a medical institute will be added.

The total number of superior educational institutions in Russia, including the higher military, naval, and ecclesiastical schools, is 55, with more than 30,000 students attending them, which number is three times larger than in the year 1878, when there were only 10,000 students of this grade.

MILITARY, NAVAL, AND THEOLOGICAL SCHOOLS.

The system of military schools includes 4 schools of higher grade, or academies viz, the Nicholas Military Academy, the Military Jurisdiction Academy, the Military Engineering Academy, and the Artillery Academy.

A grade lower are the 8 officers' schools. The secondary educational institutions are all boarding schools, designed for the children of officers; the higher classes which the cadets must pass before being qualified as officers, are called the "junker schools."

For the superior instruction of naval officers an academy and a naval engineering school in Kronstadt have been founded. Intermediate education is given in the naval corps in St. Petersburg, including a three years' general course and three years of special sciences. The lower naval education is given in the 44 sailors' classes.

The ecclesiastical schools, of 3 grades, prepare the orthodox clergy. There are 4 orthodox academies, 1 for Roman Catholics, and 1 faculty (in the university of Yurjef) for Protestants. The system of secondary schools consists of 65 seminaries; the lower grade includes 55 ecclesiastical schools, both serving for the education of the children of the orthodox clergy. All these schools are attached to the Holy Synod.

Russia is generally looked upon as a country which remains far behind in regard to public instruction; but it must be taken into consideration that the commencement of public instruction is very recent and that the Russian State and society have been working at it only for the last thirty-five years. The efforts made during the last twenty years have been most remarkable, as was testified to by the experts visitors of the educational section of the last Paris Exhibition, where more than documents dealing with all aspects of public instruction were published and distributed by the Russian division. This division was next to the French one in the number of schools exhibited and in printed matter. Besides organizing it the Russian Government provided 50,000 rubles for the transportation of 600 Russian educators to Paris during the summer of 1900, to enable them to study the different methods systems of instruction.

CHAPTER XXIX.

LIST OF EDUCATIONAL PERIODICALS IN THE UNITED STATES IN 1902.

(1) ARRANGED BY STATES.

Alabama.

Birmingham, Educational Exchange, M., 1902, vol. 17.
Huntsville, The Educator, M., 1902, vol. 4.
Normal, Normal Index, W., 1902, vol. 16.

Arkansas.

Little Rock, Arkansas School Journal, M., 1902, vol. 7.

California.

Berkeley, University Chronicle, Bi-m., 1902, vol. 5.
San Francisco, Western Journal of Education, M., 1902, vol. 17.

Colorado.

Denver, Chautauquan Journal, M., 1902, vol. 4.
Denver, Colorado School Journal, M., 1902, vol. 17.

Connecticut.

Meriden, Connecticut School Journal, W., 1902, vol. 8.
New Haven, Yale Review, M., 1902, vol. 11.

District of Columbia.

Washington, American Annals of the Deaf, Qu., 1902, vol. 48.
Washington, Catholic University Bulletin, Qu., 1902, vol. 8.

Florida.

Jacksonville, Florida School Exponent, M., 1902, vol. 9.
Tallahassee, Southern School and Home, M., 1902, vol. 1.

Georgia.

Atlanta, Southern Educational Journal, M., 1902, vol. 15.

Illinois.

Bloomington, School and Home Education, M., 1902, vol. 21.
Chicago, Biblical World, M., 1902, vol. 16.
Chicago, Child Garden, M., 1902, vol. 10.
Chicago, Dial (The), M., 1902, vol. 30.
Chicago, Elementary Teacher and Course of Study, M., 1902, vol. 3.
Chicago, Journal of Childhood and Adolescence, M., 1902, vol. 2.
Chicago, Kindergarten Magazine, M., 1902, vol. 15.
Chicago, Manual Training Magazine, Qu., 1902, vol. 4.
Chicago, Music, M., 1902, vol. 20.
Chicago, Progress, M., 1902, vol. 7.
Chicago, Review of Education, M., 1902, vol. 8.
Chicago, School Review, M., 1902, vol. 10.
Chicago, School Science, M., 1902, vol. 2.
Chicago, University Record, W., 1902, vol. 7.
Oak Park, Intelligence, Semi-m., 1902, vol. 22.
Oak Park, School Weekly, W., 1902, vol. 8.
Taylorsville, School News and Practical Educator, M., 1902, vol. 16.

Indiana.

Indianapolis, Educator-Journal, M., 1902, vol. 3.

Iowa.

Cedar Rapids, The Western Penman, M., 1902, vol. 19.
Charles City, Iowa Teacher, M., 1902, vol. 17.
Des Moines, Midland Schools, M., 1902, vol. 17.
Dubuque, Iowa Normal Monthly, M., 1902, vol. 25.
Fort Dodge, Webster County Teacher, M., 1902, vol. 12.
Keokuk, School Music Monthly, M., 1902, vol. 3.

Kansas.

Emporia, State Normal Bulletin, M., 1902, vol. 4.
Lawrence, Kansas University Quarterly, Qu., 1902, vol. 11.
Manhattan, Industrialist (The), M., 1902, vol. 29.
New Albany, Country School Champion, M., 1902, vol. 5.
Topeka, Western School Journal, M., 1902, vol. 19.

Louisiana.

New Orleans, Teachers' Outlook, M., 1902, vol. 3.

Maryland.

Baltimore, Johns Hopkins University Circular, M., 1902, vol. 22.

Massachusetts.

Boston, American Kitchen Magazine, M., 1902, vol. 15.
Boston, American Primary Teacher, M., 1902, vol. 20.
Boston, Bostonia, Qu., 1902, vol. 3.
Boston, Boston Cooking School Magazine, Bi-m., 1902, vol. 7.
Boston, Education, M., 1902, vol. 23.
Boston, Journal of Education, W., 1902, vol. 54.
Boston, Literary World, Semi-m., 1902, vol. 33.
Boston, Popular Educator, M., 1902, vol. 19.
Boston, Posse Gymnasium Journal, M., 1902, vol. 10.
Boston, Practical Psychology, M., 1902, vol. 2.
Boston, Primary Education, M., 1902, vol. 10.
Boston, School Physiology Journal, M., 1902, vol. 12.
Boston, Technological Quarterly, Qu., 1902, vol. 15.
Cambridge, The People, M., 1902, vol. 4.
Springfield, Kindergarten Review, M., 1902, vol. 13.
Worcester, Seminary (The), Qu., 1902, vol. 9.
Worcester, American Journal of Psychology, Qu., 1902, vol. 14.

Michigan.

Lansing, Journal of Pedagogy, Qu., 1902, vol. 18.
Lansing, Michigan School Moderator, Semi-m., 1902, vol. 23.

Minnesota.

Minneapolis, School Education, M., 1902, vol. 21.
Minneapolis, Minnesota School Journal, M., 1902, vol. 2.

Missouri.

Fulton, School Independent, M., 1902, vol. 1.
Jefferson City, Missouri School Journal, M., 1902, vol. 19.
St. Louis, Evangelish-Lutherisches Schulblatt, M., 1902, vol. 37.

Nebraska.

Lincoln, Nebraska Teacher, M., 1902, vol. 5.
Lincoln, School Index, M., 1902, vol. 2.
Omaha, Nebraska Mute Journal, M., 1902, vol. 30.
Santee Agency, Word Carrier, M., 1902, vol. 31.

New Hampshire.

Manchester, Notes and Queries, M., 1902, vol. 21.

New Jersey.

Ringoes, Journal of Orthoepi and Orthografi, M., 1902, vol. 19.
Trenton, Silent Worker (The), M., 1902, vol. 15.

New York.

Albany, American Education from Kindergarten to College, M., 1902, vol. 6.
Brooklyn, American Physical Education Review, Qu., 1902, vol. 3.
Brooklyn, Latin Leaflet, W., 1902, vol. 2.
Brooklyn, Teacher (The), M., 1902, vol. 7.
Cornwall, Schoolmaster (The), M., 1902, vol. 5.
Dansville, Normal Instructor and Teach World, M., 1902, vol. 11.
Malone, Mentor (The), M., 1902, vol. 8.
Newark Valley, Educational Review, M., 1 vol. 3.
New York, American School Board Journal, 1902, vol. 22.
New York, American University Magazine, Bi 1902, vol. 9.
New York, Art Amateur (The), M., 1902, vol
New York, Art Study, M., 1902, vol. 1.
New York, Columbia University Quarterly, 1902, vol. 5.
New York, Deaf Mutes' Journal, W., 1902, vol
New York, Educational Foundations, M., 1 vol. 14.
New York, Educational Review, M., 1902, vol
New York, Ethical Record, Bi-m., 1902, vol. 4
New York, Literary Digest, W., 1902, vol. 22.
New York, Journal of Mental Pathology, 1902, vol. 3.
New York, New Education, M., 1902, vol. 15.
New York, Our Times, Semi-m., 1902, vol. 19.
New York, Penman's Art Journal, M., vol. 27.
New York, Pitman's Phonetic Journal, W., vol. 60.
New York, Pitman's Shorthand Weekly, W., vol. 26.
New York, Pratt Institute Monthly, M., vol. 10.
New York, Primary School, M., 1902, vol. 12.
New York, School, W., 1902, vol. 14.
New York, School Journal, W., 1902, vol. 62.
New York, School Music Review, M., 1902, vo
New York, Sunday School Journal, M., vol. 34.
New York, Teachers' Institute, M., 1902, vo
New York, Werner's Magazine, M., 1902, vo
Rochester, Educational Gazette, M., 1902, vo
Syracuse, Journal of Pedagogy, Qu., 1902, vo
Syracuse, School Bulletin, M., 1902, vol. 29.

North Carolina.

Greensboro, State Normal Magazine, M., vol. 15.

Ohio.

Athens, Ohio Teacher, M., 1902, vol. 24.
Cincinnati, Christian Educator, Bi-m., vol. 13.
Cincinnati, Our Companion, M., 1902, vol. 1
Cincinnati, Public School Journal, M., vol. 42.
Columbus, Ohio Chronicle for Deaf and D W., 1902, vol. 35.
Columbus, Ohio Educational Monthly, M., vol. 51.
Toledo, Complete Education, M., 1902, vol.

Oklahoma.

Norman, Oklahoma School Herald, M., vol. 11.

Oregon.

Salem, Oregon Teachers' Monthly, M., 1902,

Pennsylvania.

Allentown, National Educator, M., 1902, vol. 43.
Edinboro, Sunshine Magazine and Educational Independent, W., 1902, vol. 10.
Harrisburg, School Gazette, M., 1902, vol. 14.
Lancaster, Journal of Geography, M., 1902, vol. 6.
Lancaster, Pennsylvania School Journal, M., 1902, vol. 51.
Meadville, Chautauquan (The), M., 1902, vol. 32.
Millersville, Normal Journal, Qu., 1902, vol. 16.
Mount Airy-Philadelphia, Association Review, Bi-m., 1902, vol. 4.
Philadelphia, Journal of Franklin Institute, M., 1902, vol. 152.
Philadelphia, Stenographer (The), M., 1902, vol. 17.
Philadelphia, Studies in Education, M., 1902, vol. 2.
Philadelphia, Teacher (The), M., 1902, vol. 7.
Scranton, Science and Industry, M., 1902, vol. 2.

South Carolina.

Aiken, Schofield School Bulletin, M., 1902, vol. 13.
Columbia, Educational (The), M., 1902, vol. 1.

South Dakota.

Mitchell, South Dakota Educator, M., 1902, vol. 16.

Tennessee.

Knoxville, Southern Education Notes, M., 1902, vol. 1.
Knoxville, Southern Education Board Bulletin, M., 1902, vol. 1.
Nashville, Progressive Teacher (The), M., 1902, vol. 8.

Texas.

Austin, Texas School Journal, M., 1902, vol. 19.
Dallas, Texas School Magazine, M., 1902, vol. 5.

Virginia.

Hampton, Southern Workman and Hampton School Record, M., 1902, vol. 31.
Reliance, Southern Educational Review, M., 1902, vol. 1.
Richmond, Atlantic Educational Journal, M., 1902, vol. 5.
Richmond, Virginia School Journal, M., 1902, vol. 11.
Williamsburg, William and Mary College Quarterly, Qu., 1902, vol. 11.

Washington.

Seattle, Northwest Journal of Education, M., 1902, vol. 14.
Vancouver, Washingtonian (The), Semi-m., 1902, vol. 11.

West Virginia.

Charleston, West Virginia School Journal, M., 1902, vol. 23.

Wisconsin.

Madison, Wisconsin Journal of Education, M., 1902, vol. 32.
Milwaukee, American Journal of Education, M., 1902, vol. 36.
Milwaukee, Lutherische Schulzeitung, M., 1902, vol. 28.
Milwaukee, Mind and Body, M., 1902, vol. 9.
Milwaukee, Pædagogische Monatshefte, M., 1902, vol. 4.
Milwaukee, Western Teacher, M., 1902, vol. 11.

(2) ARRANGED BY SUBJECTS.

Common school education, elementary and secondary.

American Education—N. Y.
American Journal of Education—Wis.
American Primary Teacher—Mass.
Arkansas School Journal—Ark.
Atlantic Educational Journal—Va.
Brooklyn Teacher—N. Y.
Colorado School Journal—Colo.
Complete Education—Ohio.
Connecticut School Journal—Conn.
Country School Champion—Kans.
Education—Mass.
Educational (The)—S. C.
Educational Exchange—Ala.
Educational Foundations—N. Y.
Educational Review—N. Y.
Educator (The)—Ala.
Educator-Journal—Ind.
Elementary Teacher and Course of Study—Ill.
Evangelisch-Lutherisches Schulblatt—Mo.
Florida School Exponent—Fla.
Intelligence—Ill.
Iowa Teacher—Iowa.
Journal of Education—Mass.
Lutherische Schulzeitung—Wis.
Mentor—N. Y.
Michigan School Moderator—Mich.
Midland Schools—Iowa.
Minnesota School Journal—Minn.
Missouri School Journal—Mo.
National Educator—Pa.
Nebraska Teacher—Nebr.
New Education—N. Y.
Normal Index—Ala.
Northwest Journal of Education—Wash.
Ohio Educational Monthly—Ohio.
Ohio Teacher—Ohio.
Oklahoma School Herald—Okla.
Oregon Teachers' Monthly—Oreg.
Our Times—N. Y.
Paedagogische Monatshefte—Wis.
Pennsylvania School Journal—Pa.
People (The)—Mass.
Popular Educator—Mass.
Primary Education—Mass.
Primary School—N. Y.
Progressive Teacher—Tenn.
Public School Journal—Ohio.
Review of Education—Ill.
Schofield School Bulletin—S. C.
School—N. Y.
School and Home Education—Ill.
School Bulletin—N. Y.
School Education—Minn.
School Gazette—Pa.
School Independent—Mo.

School Index—Nebr.
School Journal—N. Y.
School Journal—Minn.
Schoolmaster (The)—N. Y.
School News and Practical Educator—Ill.
School Weekly—Ill.
Seminary—Mass.
South Dakota Educator—S. Dak.
Southern Educational Journal—Ga.
Southern Education Board Bulletin—Tenn.
Southern Education Notes—Tenn.
Southern School and Home—Fla.
Studies in Education—Pa.
Sunshine Magazine and Educational Independent—Pa.
Teacher (The)—Pa.
Teachers' Outlook—La.
Texas School Journal—Tex.
Texas School Magazine—Tex.
Virginia School Journal—Va.
Washingtonian (The)—Wash.
Webster County Teacher—Iowa.
Western Journal of Education—Cal.
Western School Journal—Kans.
Western Teacher—Wis.
West Virginia School Journal—W. Va.
Wisconsin Journal of Education—Wis.
Word Carrier—Nebr.

Kindergarten education.

Child Garden—Ill.
Kindergarten Magazine—Ill.
Kindergarten Review—Mass.

Secondary education, exclusively or chiefly.

Educational Review—N. Y.
Journal of Pedagogy—Mich.
School Review—Ill.
School Science—Ill.

Normal school education.

Iowa Normal Monthly—Iowa.
Normal Instructor and Teachers' World—N. Y.
Normal Journal—Pa.
State Normal Magazine—N. C.
State Normal Bulletin—Kans.
Teachers' Institute—N. Y.

University publications.

Bostonia—Mass.
Catholic University Bulletin—D. C.
Columbia University Quarterly—N. Y.
Johns Hopkins University Circular—Md.
Seminary (The)—Mass.
University Chronicle—Cal.
University Quarterly—Kans.
University Record—Ill.
Yale Review—Conn.
William and Mary College Quarterly—Va.

Physical education.

American Physical Education Review—N. Y.
Mind and Body—Wis.
Posse Gymnasium Journal—Mass

Religious and ethical education.

Biblical World—Ill.
Christain Educator—Ohio.
Ethical Record—N. Y.
Our Companion—Ohio.
Sunday School Journal—N. Y.

Art education.

Art Amateur—N. Y.
Art Study—N. Y.

Child study and psychology.

American Journal of Psychology—Mass.
Journal of Childhood and Adolescence—Ill.
Journal of Mental Pathology—N. Y.
Practical Psychology—Mass.

Industrial and technical education.

Industrialist (The)—Kans.
Journal of Franklin Institute—Pa.
Manual Training Magazine—Ill.
Technological Quarterly—Mass.
Pratt Institute Monthly—N. Y.
Science and Industry—Pa.
Southern Workman and Hampton School Record—Va.

Deaf mutes' education.

American Annals of the Deaf—D. C.
Association Review—Pa.
Deaf-Mutes' Journal—N. Y.
Nebraska Mute Journal—Nebr.
Ohio Chronicle for Deaf and Dumb—Ohio.
Silent Worker—N. J.

Domestic education.

American Kitchen Magazine—Mass.
Boston Cooking School Magazine—Mass.

Language and elocution.

Latin Leaflet—N. Y.
Journal of Orthoepi and Orthografi—N. J.
Werner's Magazine—N. Y.

Calligraphy and stenography.

Journal of Orthoepi and Orthografi—N. J.
Penman's Art Journal—N. Y.
Pitman's Shorthand Weekly—N. Y.
Pitman's Phonetic Journal—N. Y.
Stenographer (The)—Pa.
Western Penman—Iowa.

Music.

Music—Ill.
School Music Monthly—Iowa.
School Music Review—N. Y.

Geography.

Journal of Geography—Pa.

Physiology.

School Physiology Journal—Mass.

School administration.

American School Board Journal—N. Y.

Literature and criticism.

Chautauquan (The)—Pa.
Chautauqua Journal—Colo.
Dial (The)—Ill.
Literary Digest—N. Y.
Literary World—Mass.
Notes and Queries—N. H.
Progress—Ill.

CHAPTER XXX.

EDUCATIONAL DIRECTORY.[a]

I.—Chief State School Officers.

Name.	Address.	Official designation.
I. W. Hill	Montgomery, Ala	State superintendent of education.
N. G. Layton	Phoenix, Ariz	Territorial superintendent of public instruction.
John H. Hinemon	Little Rock, Ark	State superintendent of public instruction.
Thomas J. Kirk	Sacramento, Cal	Do.
Mrs. Helen L. Grenfell	Denver, Colo	Do.
Charles D. Hine	Hartford, Conn	Secretary of State board of education.
P. B. Norman, jr	Dover, Del	Do.
A. T. Stuart	Washington, D. C	Superintendent of District schools.
W. N. Sheats	Tallahassee, Fla	State superintendent of public instruction.
W. B. Merritt	Atlanta, Ga	State school commissioner.
Miss Permeal French	Boise, Idaho	State superintendent of public instruction.
Alfred Bayliss	Springfield, Ill	Do.
John D. Benedict	Muscogee, Ind. T	Territorial superintendent of schools.
F. A. Cotton	Indianapolis, Ind	State superintendent of public instruction.
R. C. Barrett	Des Moines, Iowa	Do.
I. L. Dayhoff	Topeka, Kans	Do.
H. V. McChesney	Frankfort, Ky	Do.
J. V. Calhoun	Baton Rouge, La	State superintendent of public education.
W. W. Stetson	Augusta, Me	State superintendent of public schools.
M. Bates Stephens	Baltimore, Md	State superintendent of public instruction.
Frank A. Hill	Boston, Mass	Secretary of State board of education.
Delos Fall	Lansing, Mich	State superintendent of public instruction.
J. W. Olsen	St. Paul, Minn	Do.
Henry L. Whitfield	Jackson, Miss	State superintendent of public education.
W. T. Carrington	Jefferson City, Mo	State superintendent of public schools.
W. W. Welch	Helena, Mont	State superintendent of public instruction.
W. K. Fowler	Lincoln, Nebr	Do.
Orvis Ring	Carson, Nev	Do.
Channing Folsom	Concord, N. H	Do.
Chas. J. Baxter	Trenton, N. J	Do.
J. Franco Chavez	Santa Fe, N. Mex	Territorial superintendent of public instruction.
Charles R. Skinner	Albany, N. Y	State superintendent of public instruction.
J. Y. Joyner	Raleigh, N. C	Do.
W. L. Stockwell	Bismarck, N. Dak	Do.
Lewis D. Bonebrake	Columbus, Ohio	State commissioner of common schools.
L. W. Baxter	Guthrie, Okla	Territorial superintendent of public instruction.
J. H. Ackerman	Salem, Oreg	State superintendent of public instruction.
Nathan C. Schaeffer	Harrisburg, Pa	Do.
Thomas B. Stockwell	Providence, R. I	Commissioner of public schools.
O. B. Martin	Columbia, S. C	State superintendent of education.
G. W. Nash	Pierre, S. Dak	State superintendent of public instruction.
Seymour A. Mynders	Nashville, Tenn	Do.
Arthur Lefevre	Austin, Tex	Do.
A. C. Nelson	Salt Lake City, Utah	Do.
Walter E. Ranger	Montpelier, Vt	State superintendent of education.
Joseph W. Southall	Richmond, Va	State superintendent of public instruction.
R. B. Bryan	Olympia, Wash	Do.
Thomas C. Miller	Charleston, W. Va	State superintendent of free schools.
C. P. Cary	Madison, Wis	State superintendent of public schools.
Thomas T. Tynan	Cheyenne, Wyo	State superintendent of public instruction.
Sheldon Jackson	Sitka, Alaska	General agent of education.
A. T. Atkinson	Honolulu, Hawaii	Superintendent of public instruction.
Elmer B. Bryan	Manila, Philippine Islands	General superintendent of public instruction.
Samuel M. Lindsay	San Juan, Porto Rico	Commissioner of education.

[a] Corrected to June, 1903, in so far as changes have been reported to the Bureau.

II.—List of City Superintendents.

ALABAMA

Anniston, D. R. Murphy.
Bessemer, Joseph M. Dill.
Birmingham, J. H. Phillips.
Eufaula, F. L. McCoy.
Florence, Henry Clay Gilbert.
Huntsville, S. R. Butler.
Mobile, S. S. Murphy.
Montgomery, Charles L. Floyd.
New Decatur, R. R. Harris.
Opelika, George W. Brock.
Phoenix, W. F. Monk.
Selma, R. E. Hardaway.
Tuscaloosa, James H. Foster.

ARIZONA.

Phoenix, R. L. McDonnold.
Tucson, William Angus.

ARKANSAS.

Fayetteville, J. C. Mitchell.
Fort Smith, B. W. Torreyson.
Helena, S. H. Spragins.
Hot Springs, George B. Cook.
Jonesboro, D. T. Rogers.
Little Rock, John H. Hinemon.
Pine Bluff, ——.
Texarkana, W. C. McAllister.

CALIFORNIA.

Alameda, Charles C. Hughes.
Bakersfield, David W. Nelson.
Berkeley, S. D. Waterman.
Eureka, A. C. Barker.
Fresno, C. L. McLane.
Los Angeles, James A. Foshay.
Napa City, J. L. Shearer.[a]
Oakland, John W. McClymonds.
Pasadena, James D. Graham.
Pomona, Frank H. Hyatt.[b]
Redlands:
  School district, A. Harvey Collins.[b]
  Luconia district, D. C. Reed.[b]
Riverside, Howard L. Lunt.[b]
Sacramento, O. W. Erlewine.
San Bernardino, Miss Lula Claire Bahr.
San Diego, F. P. Davidson.
San Francisco, W. H. Langdon.
San Jose, D. T. Bateman.
Santa Ana, Joseph C. Templeton.
Santa Barbara, William A. Wilson.
Santa Cruz, David C. Clark.
Santa Rosa, E. M. Cox.[b]
Stockton, James A. Barr.
Vallejo, J. J. Rippetoe.

COLORADO.

Aspen, F. J. Brownscombe.
Boulder, William V. Casey.
Colorado Springs, John Dietrich.
Cripple Creek, Wilson M. Shafer.
Denver:
  District No. 1, Aaron Gove.
  District No. 2, L. C. Greenlee.
  District No. 7, M. F. Miller.
  District No. 17, Charles E. Chadsey.
Leadville, Edward C. Elliott.
Pueblo:
  District No. 1, James S. McClung.
  District No. 20, John F. Keating.
Trinidad, Charles V. Parker.

CONNECTICUT.

Ansonia, Arthur D. Call.
Bridgeport, Charles W. Deane.
Bristol, Charles L. Wooding.
Danbury, A. C. Hubbard.[c]
Derby, J. W. Peck.
East Hartford, Joseph O. Goodwin,[c] Charles Hine.[d]
Enfield, George T. Finch.[d]
Greenwich, Newton B. Hobart,[e] Thomas Howley.[c]
Hartford, Thomas S. Weaver.
Huntington, Horace Wheeler.[c]
Killingly, James M. Paine.
Manchester:
  Town schools, Herbert O. Bowers.[c]
  Ninth district (south), Charles S. Cheney.
Meriden, Albert B. Mather.
Middletown, Walter B. Ferguson.
Naugatuck, Frank W. Eaton.
New Britain, Giles A. Stuart.
New Haven, Frank Herbert Beede.
New London, Charles B. Jennings.
New Milford, Charles N. Hall.
Norwalk, A. Blanchard.[c]
Norwich:
  Nathan Lee Bishop (superintendent Cent district).
  John B. Stanton (superintendent West Side district).
Putnam, W. R. Barber,[c] E. H. Johnson.[f]
Southington, Mrs. Anna D. Pollard.
Stamford, Everett C. Willard.
Torrington, Edwin H. Forbes.
Vernon, W. B. Foster.
Wallingford, W. P. Thomson, Malcolm Booth
Waterbury, B. W. Tinker.
West Haven, Edgar C. Stiles.
Westport, L. T. Day.[g]
Winchester, H. Hungerford Drake.[h]
Windham, George E. Hinman.[i]

DELAWARE.

Wilmington, George W. Twitmyer.

DISTRICT OF COLUMBIA.

Washington, A. T. Stuart.

[a] Principal grammar school.
[b] Supervising principal.
[c] Secretary board of school visitors.
[d] Acting visitor.
[e] Principal.
[f] Acting school visitor.
[g] Secretary of the board of school visitors.
[h] School visitor and secretary of the board, post-office Winsted.
[i] Secretary school committee; post-office, Willimantic.

FLORIDA.

Jacksonville, George P. Glenn.
Key West, J. V. Harris.[a]
Lake City, T. H. Owens.[a]
Pensacola, N. B. Cook.[a]
St. Augustine, E. H. Reynolds.
Tampa, B. C. Gragam.[a]

GEORGIA.

Albany, S. R. De Jarnette,[a] L. E. Welsh.[b]
Americus, J. E. Mathis.
Athens, G. G. Bond.
Atlanta, W. F. Slaton.
Augusta, Lawton B. Evans.
Brunswick, N. H. Ballard.
Columbus, Carleton B. Gibson.
Dalton, B. M. Thomas.
Griffin, J. Henry Walker.
Macon, Jere M. Pound.
Marietta, Steadman V. Sanford.
Rome, James C. Harris.
Savannah, Otis Ashmore.
Thomasville, C. Jackson.
Waycross, E. A. Pound.

IDAHO.

Boise, John W. Daniels.
Pocatello, Walter R. Siders.

ILLINOIS.

Alton, Robert A. Haight.
Aurora:
District No. 4 (west side), A. V. Greenman.
District No. 5 (east side), C. M. Bardwell.
Beardstown, H. J. Jokisch.
Belleville, J. K. Light.
Belvidere, Arthur J. Snyder.
Bloomington, J. K. Stableton.
Blue Island, J. E. Lemon.
Cairo, Taylor C. Clendenen.
Canton, Charles S. Aldrich.
Centralia, S. H. Bohn.
Champaign, Joseph Carter.
Charleston, J. L. Hughes.
Chicago, Edwin G. Cooley.
Clinton, E. B. Bentley.
Collinsville, Charles H. Dorris.
Danville, L. H. Griffith.
Decatur, Enoch A. Gastman.
Dekalb, Newell D. Gilbert.
Dixon, Charles W. Groves.
Duquoin, Charles W. Houk.
East St. Louis, John Richeson.
Edwardsville, Charles W. Parkinson.
Elgin, M. A. Whitney.
Evanston:
District No. 1, Homer H. Kingsley.
District No. 74, North Evanston, Nellie E. Trembor.[b]
District No. 76, South Evanston, Fred W. Nichols.
Freeport, R. S. Page.
Galena, P. H. Clark.
Galesburg, William L. Steele.
Harlem, Frank Curtis.
Harvey, F. L. Miller.
Jacksonville, E. E. Webster.
Joliet, John J. Allison.
Kankakee, F. N. Tracy.
Kewanee, A. C. Butler.
La Salle, J. B. McManus.
Lincoln, B. E. Nelson.
Litchfield, C. E. Richmond.
Macomb, W. W. Earnest.
Maywood, J. Porter Adams.
Mattoon, G. P. Randall.
Metropolis City, Edward Longbons.
Moline, William J. M. Cox.
Monmouth, B. F. Armitage.
Morris, Preston King Cross.
Mount Carmel, W. S. Booth.
Mount Vernon, H. J. Alvis.
Murphysboro, Edward J. Klemme.
Ottawa, W. A. Furr.
Pana, H. C. McCarrel.
Paris, H. W. Monical.
Pekin, O. A. Shotts.
Peoria, Newton Charles Dougherty.
Peru, Ira M. Ong.
Pontiac, Isaac Mitchell.
Princeton, ——.
Quincy, F. G. Ertel.
Rockford, P. R. Walker.
Rock Island, Herbert B. Hayden.
Springfield, J. H. Collins.
Spring Valley, C. H. Andrews.
Sterling:
District No. 3 (the Sterling schools), H. L. Chaplin.
District No. 8 (the Wallace schools), H. A. Hollister.
Streator, John Andrew Long.
Taylorville, John A. Cheney.
Urbana, J. W. Hays.
Waukegan, Miriam Besley.

INDIANA.

Alexandria, Lawrence McTurnan.
Anderson, John W. Carr.
Bedford, W. E. Alexander.
Bloomington, James K. Beck.
Bluffton, W. A. Wirt.
Brazil, L. B. O'Dell.
Columbus, T. F. Fitzgibbon.
Connersville, W. S. Rowe.
Crawfordsville, William A. Millis.
Elkhart, D. W. Thomas.
Evansville, Frank W. Cooley.
Fort Wayne, Justin N. Study.
Frankfort, George L. Roberts.
Franklin, H. B. Wilson.
Goshen, Victor W. B. Hedgepeth.
Greenfield, A. E. Martin.
Greensburg, D. M. Geeting.
Hammond, W. H. Hershman.
Hartford City, C. H. Drybread.
Huntington, Robert I. Hamilton.
Indianapolis, Calvin N. Kendall.
Jeffersonville, A. C. Goodwin.
Kokomo, Robert A. Ogg.
Lafayette, Russell K. Bedgood.

[a] County superintendent.
[b] Principal.

Laporte, John A. Wood.
Lawrenceburg, T. H. Meek.
Lebanon, Charles A. Peterson.
Logansport, Albert H. Douglass.
Madison, C. M. McDaniel.
Marion, Benjamin F. Moore.
Martinsville, J. E. Robinson.
Michigan City, Paul A. Cowgill.
Mishawaka, Byron J. Bogue.
Mount Vernon, Edwin S. Monroe.
Muncie, W. R. Snyder.
New Albany, C. A. Prosser.
Noblesville, John F. Haines.
Peru, Ira M. Ong.
Portland, Hale Bradt.
Princeton, ——.
Richmond, Thomas A. Mott.
Rushville, A. G. McGregor.
Seymour, H. C. Montgomery.
Shelbyville, James H. Tomlin.
South Bend, Calvin Moon.
Terre Haute, William H. Wiley.
Valparaiso, Arthur A. Hughart.
Vincennes, Albert E. Humke.
Wabash, Miles W. Harrison.
Washington, William F. Axtell.

IOWA.

Atlantic, Carlos M. Cole.
Boone, J. C. King.
Burlington, Francis M. Fultz.
Cedar Falls, D. M. Kelly.
Cedar Rapids, J. J. McConnell.
Centerville, F. E. King.
Chariton, J. B. Morris.
Charles City, George S. Dick.
Clinton, O. P. Bostwick.
Council Bluffs, W. N. Clifford.
Creston, O. E. French.
Davenport, J. B. Young.
Des Moines:
East Side, Amos Hiatt.
West Side, Samuel H. Sheakley.
Capital Park, R. J. Hartung.
Dubuque, F. T. Oldt.
Fairfield, J. E. Williamson.
Fort Dodge, George H. Mullin.
Fort Madison, C. W. Cruikshank.
Grinnell, D. A. Thornburg.
Iowa City, S. K. Stevenson.
Keokuk, O. W. Weyer.
Lemars, Anson H. Bigelow.
Marion, G. E. Finch.
Marshalltown, William I. Crane.
Mason City, Leander D. Ellis.
Missouri Valley, ——.
Mount Pleasant, Frank Whittier Else.
Muscatine, W. F. Chevalier.
Oelwein, L. B. Moffett.
Oskaloosa, S. J. Finley.
Ottumwa, A. W. Stuart.
Redoak, G. W. Bryan.
Sioux City, W. M. Stevens.
Washington, W. A. Pratt.
Waterloo:
East Side, F. H. Bloodgood.
West Side, A. T. Hukill.
Webster City, L. H. Ford.

KANSAS.

Argentine, H. P. Butcher.
Arkansas City, W. M. Fisher.
Atchison, Nathan T. Veatch.
Coffeyville, W. E. Ringle.
Emporia, L. A. Lowther.
Fort Scott, David M. Bowen.
Galena, J. A. Higdon.
Hutchison, R. R. Price.
Iola, Miss Clifford A. Mitchell.
Junction City, William S. Heusner.
Kansas City, M. E. Pearson.
Lawrence, Frank P. Smith.
Leavenworth, ——.
Newton, David F. Shirk.
Ottawa, J. H. Adams.
Parsons, N. McDonald.
Pittsburg, R. S. Russ.
Salina, George R. Crissman.
Topeka, W. M. Davidson.
Wellington, H. F. M. Bear.
Wichita, R. F. Knight.
Winfield, J. W. Spindler.

KENTUCKY.

Ashland, John Grant Crabbe.
Bellevue, F. S. Alley.
Bowling Green, Edward Taylor.
Covington, John Morris.
Danville, W. C. Grinstead.
Dayton, E. P. West.
Frankfort, S. L. Frogge.
Henderson, Livingstone McCartney.
Hopkinsville, J. B. Taylor.
Lexington, William Rogers Clay.
Louisville, Edgar H. Mark.
Maysville, E. Regenstein.[a]
Middlesboro, ——.
Newport, John Burke.
Owensboro, McHenry Rhoads.
Paducah, C. B. Hatfield.
Paris, A. O. Reubelt.
Richmond, J. D. Clark.
Winchester, R. M. Shiff.

LOUISIANA.

Alexandria, A. M. Hendon.
Baton Rouge, R. C. Gordon.
Crowley, J. E. Barry.
Donaldsonville, Richard McCulloch.
Lake Charles, John McNeese.
Monroe, D. B. Showalter.
New Iberia, H. D. Wilcox.
New Orleans, Warren Easton.
Shreveport, C. E. Byrd (principal h
and acting city superintendent u
Moncure, superintendent Caddo Pa

[a] Principal of high school.

MAINE.

Auburn, Bertram C. Richardson.
Augusta:
Mrs. Caroline S. Fogg (superintendent suburban and high schools).
Weston Lewis (principal Williams district).
Bangor, Charles E. Tilton.
Bath, Edward H. McLachlin.
Belfast, John R. Dunton.
Biddeford, Royal E. Gould.
Brewer, Mrs. Mertie M. Curtis.
Calais, J. F. Ryan.
Eastport, H. E. Bryant.
Ellsworth, W. H. Dresser.
Gardiner, Charles O. Turner.
Lewiston, I. C. Phillips.
Oldtown, Miss Ardelle M. Tozier.
Portland, Orlando M. Lord.
Rockland, G. C. Minard.
Saco, John S. Locke.
Skowhegan, D. W. Colby.
South Portland, James Otis Kaler.
Waterville, Elwood T. Wyman.
Westbrook, Fred. Benson.

MARYLAND.

Annapolis, Irving L. Twilley.
Baltimore, J. H. Van Sickle.
Cambridge, W. P. Beckwith.[a]
Cumberland, John T. White.[a]
Frederick, Ephraim L. Boblitz.[a]
Hagerstown, John P. Fackler.[a]

MASSACHUSETTS.

Abington, W. H. Sanderson.
Adams, Francis A. Bagnall.
Amesbury, E. O. Perkins.[b]
Amherst, Audubon L. Hardy.
Andover, Corwin F. Palmer.
Arlington, Frank S. Sutcliffe.
Athol, W. Scott Ward.
Attleboro, William P. Kelly.
Barnstable, F. W. Kingman.
Belmont, George P. Armstrong.
Beverly, Adelbert Leon Safford.
Blackstone, W. W. Browne.
Boston, Edwin P. Seaver.
Braintree, J. A. MacDougall.
Bridgewater, W. H. Sanderson.
Brockton, B. B. Russell.
Brookline, George I. Aldrich.
Cambridge, Francis Cogswell.
Canton, James S. Perkins.
Chelsea, B. C. Gregory.
Chicopee, John C. Gray.
Clinton, Charles L. Hunt.
Concord, William L. Eaton.
Danvers, Louis A. Pratt.
Dedham, Roderick Whittlesey Hine.
Easthampton, W. D. Miller.
Easton, Osman C. Evans.
Everett, Randall J. Condon.
Fall River, William C. Bates.
Fitchburg, Joseph G. Edgerly.
Framingham, Samuel F. Blodgett.
Franklin, Irving H. Gamwell.
Gardner, Judson I. Wood.
Gloucester, Freeman Putney.
Grafton, W. H. Holmes, jr.
Great Barrington, Gilman C. Fisher.
Greenfield, G. H. Danforth.
Haverhill, Roscoe D. McKeen.
Hingham, Nelson G. Howard.
Holyoke, Louis P. Nash.
Hudson, James G. Morrell.
Hyde Park, William G. Colesworthy.[b]
Ipswich, Andrew S. Thomson.
Lawrence, John E. Burke.
Leominister, Thomas E. Thompson.
Lowell, Arthur K. Whitcomb.
Lynn, Frank J. Peaslee.
Malden, George E. Gay.
Manchester, George P. Armstrong.
Mansfield, Edward P. Fitts.
Marblehead, John B. Gifford.
Marlboro, J. Asbury Pitman.
Medford, Charles H. Morss.
Melrose, Fred H. Nickerson.
Merrimac, F. E. Pease.[c]
Methuen, A. Everett White.
Middleboro, Charles H. Bates.
Milford, Charles W. Haley.
Millbury, Watson C. Lea.
Milton, Asher J. Jacoby.
Montague, ——.
Natick, Albert L. Barbour.
Needham, Henry M. Walradt.
New Bedford, William E. Hatch.
Newburyport, William P. Lunt.
Newton, Fred. W. Atkinson.
North Adams, Isaac Freeman Hall.
Northampton, J. H. Carfrey.
North Andover, George E. Chickering.
North Attleboro, James W. Brehant.
Northbridge, S. A. Melcher.
North Brookfield, Wm. A. Hoyt.
Norwood, A. P. Wagg.
Orange, Edward Dixon.
Palmer, Harold M. Dean.
Peabody, Lester L. Barrington.
Pittsfield, Eugene Bouton.
Plymouth, Francis J. Heavens.
Provincetown, Alvan R. Lewis.
Quincy, Frank Edson Parlan.
Reading, Melville A. Stone.
Revere, Wm. H. Winslow.
Rockland, James H. Tanquey.
Rockport, Harriot A. Wetherell.
Salem, John Wright Perkins.
Saugus, Charles E. Stevens.
Somerville, Gordon A. Southworth.
Southbridge, Fred E. Corbin.
South Hadley, A. H. Campbell.
Spencer, George I. Clapp.
Springfield, Thomas M. Balliet.
Stoneham, Charles E. Stevens.
Stoughton, Edward P. Fitts.
Swampscott, Harold C. Childs.[d]

[a] County school examiner.
[b] Secretary of school committee.
[c] Chairman school committee.
[d] Principal.

Taunton, C. F. Boyden.
Upton, W. H. Holmes, jr.
Wakefield, Alfred C. Thompson.
Waltham, William D. Parkinson.
Ware, George W. Cox.
Warren, O. H. Adams.
Watertown, Frank R. Page.
Webster, A. H. Morse.
Wellesley, Marshall Livingston Perrin.
Westboro, H. C. Waldron.
Westfield, Stanley H. Holmes.
West Springfield, C. E. Brockway.
Weymouth, Elmer E. Sherman.
Whitman, Albert Robinson.
Williamstown, Walter G. Mitchell.
Winchendon, David B. Locke.
Winchester, Robert C. Metcalf.
Winthrop, Frank A. Douglas.
Woburn, Thomas Emerson.
Worcester, Homer P. Lewis.

MICHIGAN.

Adrian, P. J. Willson.
Albion, W. J. McKone.
Alpena, George A. Hunt.
Ann Arbor, H. M. Slauson.
Battle Creek, William G. Coburn.
Bay City, John A. Stewart.
Benton Harbor, Eugene A. Wilson.
Big Rapids, James R. Miller.
Cadillac, James Hamilton Kaye.
Calumet, H. E. Kratz.
Charlotte, M. R. Parmelee.
Cheboygan, William C. Thompson.
Coldwater, H. E. Johnson.
Delray, Frank Cody.
Detroit, Wales C. Martindale.
Dowagiac, Warren E. Conkling.
Escanaba, William M. Jolliffe.
Flint, R. H. Kirtland.
Grand Haven, Edward P. Cummings.
Grand Rapids, W. H. Elson.
Hancock, Eugene La Rowe.
Hillsdale, S. J. Gier.
Holland, F. D. Haddock.
Ionia, C. L. Bemis.
Iron Mountain, L. E. Amidon.
Ironwood, L. L. Wright.
Ishpeming, E. E. Scribner.
Jackson, L. S. Norton.
Kalamazoo, S. O. Hartwell.
Lansing, W. D. Sterling.
Ludington, Gerard T. Smith.
Manistee, Samuel W. Baker.
Manistique, J. J. Hoenberger.
Marquette, E. C. Thompson.
Marshall, Ralph S. Garwood.
Menominee, B. S. Hopkins.
Monroe, R. D. Briggs.
Mount Clemens, J. B. Estabrook.
Muskegon, David Mackenzie.
Negaunee, Orr Schurtz.
Niles, J. D. Schiller.
Norway, E. P. Frost.
Owosso, J. W. Simmons.
Petoskey, W. M. Andrus.
Pontiac, James H. Harris.
Port Huron, W. F. Lewis.
Saginaw:
East Side, E. C. Warriner.
West Side, N. A. Richards.
St. Joseph, Ernest P. Clarke.
Sault Ste. Marie, E. E. Ferguson.
South Haven, A. D. Prentice.
Traverse City, I. B. Gilbert.
West Bay City, W. F. Lankenaw.
Wyandotte, George R. Brandt.
Ypsilanti, William B. Arbaugh.

MINNESOTA.

Albert Lea, E. M. Phillips.
Austin, Andrew Nelson.
Brainerd, T. B. Hartley.
Duluth, Robert E. Denfeld.
Faribault, George A. Franklin.
Fergus Falls, J. A. Vandyke.
Little Falls, Alexander M. Rowe.
Mankato, Edwin B. Uline.
Minneapolis, Charles M. Jordan.
New Ulm, E. T. Critchett.
Owatonna, P. J. Kuntz.
Red Wing, W. F. Kunze.
Rochester, Lester S. Overholt.
St. Cloud, Waite A. Shoemaker.
St. Paul, A. J. Smith.
St. Peter, V. R. Wasson.
Stillwater, Darius Steward.
Winona, J. A. Tormey.

MISSISSIPPI.

Biloxi, J. H. Owings.
Columbus, Joe Cook.
Greenville, E. E. Bass.
Hattiesburg, F. B. Woodley.
Jackson, Edward L. Bailey.
McComb, Henry P. Hughes.
Meridian, J. C. Fant.
Natchez, J. Reese Lin.
Vicksburg, Charles Pendleton Kemper.

MISSOURI.

Aurora, J. L. Green.
Boonville, William A. Annin.
Brookfield, J. U. White.
Cape Girardeau, E. E. McCullough.[a]
Carterville, O. N. Waltz.
Carthage, G. M. Holiday.
Chillicothe, G. A. Smith.
Clinton, Arthur Lee.
Columbia, R. H. Emberson.
Desoto, Jasper N. Tankersley.
Fulton, J. C. Humphreys.
Hannibal, R. B. D. Simonson.
Independence, W. H. Johnson.
Jefferson City, J. W. Richardson.
Joplin, J. M. Gwinn.
Kansas City, James M. Greenwood.
Kirksville, C. S. Brother.
Lexington, C. A. Phillips.
Louisiana, Elizabeth Whitaker.
Macon, W. F. Jamison.
Marshall, B. G. Shackelford.

[a] Principal.

Maryville, C. M. Lieb.
Mexico, D. A. McMillan.
Moberly, J. A. Whiteford.
Nevada, John C. Pike.
Poplar Bluff, J. N. Street.
Richhill, S. M. Barrett.
St. Charles, George W. Jones.
St. Joseph, Edward B. Neely.
St. Louis, F. Louis Soldan.
Sedalia, G. V. Buchanan.
Springfield, Jonathan Fairbanks.
Trenton, W. C. Ryan.
Warrensburg, W. E. Morrow.
Webb City, A. G. Young.

MONTANA.

Anaconda, J. A. Koontz.
Butte, R. G. Young.
Great Falls, S. D. Largent.
Helena, Randall J. Condon.
Missoula, Roscoe W. Beighle.

NEBRASKA.

Beatrice, W. L. Stevens.
Fremont, J. L. Laird.
Grand Island, Robert J. Barr.
Hastings, J. D. French.
Kearney, A. O. Thomas.
Lincoln, C. H. Gordon.
Nebraska City, Allen C. Fling.
Omaha, Carroll G. Pearse.
Plattsmouth, E. L. Rouse.
South Omaha, J. Arnott McLean.
York, W. W. Stoner.

NEVADA.

Reno, W. H. A. Pike.

NEW HAMPSHIRE.

Berlin, Columbus P. Kimball.[a]
Concord (Union district), Louis J. Rundlett.
Dover, Frank H. Pease.
Exeter, John A. Brown.[b]
Franklin, H. C. Sanborn.
Keene (Union district), Thaddeus William Harris.
Laconia, J. H. Blaisdell.
Manchester, Charles W. Bickford.
Nashua, James H. Fassett.
Portsmouth, H. C. Morrison.
Rochester, Ernest L. Silver.
Somersworth, Elisha C. Andrews.[c]

NEW JERSEY.

Asbury Park, Fred S. Shepherd.
Atlantic City, Charles B. Boyer.
Bayonne, James H. Christie.
Bloomfield, William E. Chancellor.
Bordentown, William MacFarland.[d]
Bridgeton, E. J. Hitchner.
Burlington, Wilbur Watts.[e]
Camden, Martin V. Bergen.
Dover, J. Howard Hulsart.
East Orange, Vernon L. Davey.
Elizabeth, William J. Shearer.
Englewood, Marcellus Oakey.
Gloucester, Horatio Draper.
Hackensack, Isaac A. Demarest.
Harrison, John Dwyer.
Hoboken, A. J. Demarest.
Irvington, F. H. Morrell.
Jersey City, Henry Snyder.
Kearney, Don C. Bliss.[f]
Lambertville, Robert H. Dilts.
Long Branch, Christopher Gregory.
Millville, Silas C. Smith.
Montclair, Randall Spaulding.
Morristown, W. L. R. Haven.
Newark, Addison B. Poland.
New Brunswick, William Clinton Armstrong.
Newton, Charles J. Majory.[d]
North Plainfield, H. J. Wightman.
Orange, William M. Swingle.
Passaic, F. E. Spaulding.
Paterson, L. A. Goodenough.
Perth Amboy, S. E. Shull.
Phillipsburg, H. Budd Howell.
Plainfield, Henry M. Maxson.
Rahway, E. C. Broome.
Red Bank, S. V. Arrowsmith.
Rutherford, Stephen B. Gilhuly.
Salem, Morris H. Stratton.
Somerville, H. C. Krebs.
South Amboy, R. M. Fitch.
South Orange, H. W. Foster.
Summit, John K. Lathrop.
Town of Union, Otto Ortel.[g]
Trenton, Ebenezer Mackey.[d]
Vineland, J. J. Unger.
West Hoboken, Robert Waters.
West New York, Wm. M. Van Sickle.
West Orange, Edward D. McCollom.
Woodbury, J. E. Frey.[d]

NEW MEXICO.

Albuquerque, M. E. Hickey.
Santa Fe, J. A. Wood.

NEW YORK.

Albany, Charles W. Cole.
Albion, Willis G. Carmer.
Amsterdam, Harrison T. Morrow.
Auburn, Clinton S. Marsh.
Batavia, John Kennedy.
Bath, W. F. Palmer.[e]
Binghamton, G. R. Miller.
Buffalo, Henry P. Emerson.
Canandaigua, J. Carlton Norris.
Catskill, Thomas A. Caswell.
Cohoes, Edward Hayward.
Corning:
District No. 9, Leigh R. Hunt.
District No. 13, A. M. Blodgett.[e]

[a] Chairman of board of education.
[b] Clerk of school board.
[c] Secretary of school board.
[d] Supervising principal.
[e] Principal.
[f] Post-office, Arlington.
[g] Post-office, Weehawken.

Cortland, Ferdinand E. Smith.
Dunkirk, James C. Van Etten.
Elmira, C. F. Walker.
Fredonia, George G. Miner.[a]
Fulton, B. G. Clapp.
Geneva, William H. Truesdale.
Glens Falls, E. W. Griffith.
Gloversville, James A. Estes.
Green Island, James Heatley.
Haverstraw, L. O. Markham.
Herkimer, Schuyler F. Herron.
Hoosick Falls, H. H. Snell.
Hornellsville, Elmer S. Redman.
Hudson, F. J. Sagendorph.
Ilion, Alfred W. Abrams.
Ithaca, F. D. Boynton.
Jamestown, Rovillus R. Rogers.
Johnstown, Frank W. Jennings.
Kingston, S. R. Shear.
  District No. 1, P. H. Cullen.[b]
  District No. 2, ——.
  District No. 3, Henry Powers.[b]
  District No. 4, William A. McConnell.[b]
Lansingburg, George F. Sawyer.
Little Falls, Harry E. Reed.
Lockport, Emmet Belknap.
Lyons, W. H. Kinney.
Malone, Sarah L. Perry.
Mamaroneck, George McAndrew.
Matteawan, Earlman Fenner.[c]
Mechanicsville, L. B. Blakeman.
Medina, T. H. Armstrong.
Middletown, James F. Tuthill.
Mount Vernon, Charles E. Nichols.
Newark, Charles A. Hamilton.[c]
Newburg, James M. Crane.
New Rochelle, Isaac E. Young.
New York:
  William H. Maxwell,[d] city superintendent.
  Boroughs of Manhattan and the Bronx, Andrew W. Edson.[d]
  Borough of Brooklyn, John H. Walsh.[c]
  Borough of Queens, Edward L. Stevens.[f]
  Borough of Richmond, Hubbard R. Yetman.[g]
Niagara Falls, R. A. Taylor.
North Tonawanda, Frank J. Beardsley.
Norwich, Stanford J. Gibson.
Nyack, Ira H. Lawton.
Ogdensburg, Barney Whitney.
Olean, Delmer E. Bacheller.
Oneida, Avery Warner Skinner.
Oneonta, William C. Franklin.
Ossining, J. Irving Gorton.
Oswego, George E. Bullis.
Owego, H. B. Tilbury.
Peckskill:
  District No. 7 (Drumhill), John Millar.
  District No. 8 (Oakside), A. D. Dunbar.
Penn Yan, Jay Crissey.
Plattsburg, S. J. Preston.
Port Chester, E. G. Lautman.
Port Jervis, John M. Dolph.
Poughkeepsie, Edwin Schuyler Harris.

Renssalaer, A.
Rochester, Cha
Rome, Walter
Salamanca, Th
Sandy Hill, Fr
Saratoga Sprin
Schenectady, S
Seneca Falls, C
Syracuse, A. B
Tarrytown, A.
Tonawanda, F
Troy, John H.
Utica, George
Waterloo, H. T
Watertown, F
Watervliet, J.
Waverly, H. J
Whitehall, Wi
White Plains,
Yonkers, Char

Asheville, R.
Charlotte, R.
Concord, C. S.
Durham, J. A.
Elizabeth City
Fayetteville, J
Gastonia, John
Goldsboro, J.
Greensboro, E
High Point, G
Newbern, H.
Raleigh, C. H.
Salisbury, Ch
Washington, I
Wilmington, -
Winston, Char

Fargo, F. Eve
Grand Forks,

Akron, Henry
Alliance, John
Ashland, E. P.
Ashtabula, R.
Barberton, W.
Bellaire, J. R.
Bellfontaine,
Bellevue, E. F
Bucyrus, J. J.
Cambridge, C.
Canal Dover, I
Canton, J. M.
Chillicothe, M
Cincinnati, Ri
Circleville, C.
Cleveland:
  Edwin F.
  Starr Cadw

[a] President board of education.
[b] Post-office, Rondout.
[c] Principal.
[d] Post-office, New York City.
[e] Po
[f] Po
[g] Po

Columbus, Jacob A. Shawan.
Conneaut, C. T. Northrop.
Coshocton, H. S. Piatt.
Dayton Edwin N. Brown.
Defiance, R. W Mitchell.
Delaware, Horace A Stokes.
Delphos, G. W Lewis.
East Liverpool, Robert E. Rayman.
Elyria, W R. Comings.
Findlay, J. W. Zeliar.
Fostoria, W. S. Robinson.
Fremont, W. W. Ross.
Galion, I. C. Guinther.
Gallipolis, Charles J. Britton.
Glenville, H. H. Cully.
Greenville, Edward M. Van Cleve.
Hamilton, S. L. Rose.
Hillsboro, H. E. Coward.
Ironton, S. P. Humphrey.
Jackson, J. E. Kinnison.
Kent, A. B. Stutzman.
Kenton, J. C. Conway.
Lancaster, George W. Welsh.
Lima, Charles C. Miller.
Lorain, F. D. Ward.
Mansfield, C. L. Van Cleve.
Marietta, J. V. McMillan.
Marion, H. L. Frank.
Martins Ferry, J. H. Snyder.
Messillon, Edmund A. Jones.
Middletown, H. W. Minnich.
Moun Vernon John K. Baxter.
Nelsonvill , Aaron Grady.
Newark, F. Martin Townsend.
New Philadelphia, G. C. Maurer.
Niles, Frank J. Roller.
Norwalk, A. D. Beechy.
Norwood, W. S. Cadman.
Oberlin, E. A. Miller.
Painesville, F. H. Kendall.
Piqua, C. W. Bennett.
Pomeroy, C. T. Coates.
Portsmouth, J. I. Hudson.
St. Marys, J. D. Simkins.
Salem, Jesse L. Johnson.
Sandusky, H. B. Williams.
Shelby, W. S. Lynch.
Sidney, H. R. McVay.
Springfield, John S. Weaver.
Steubenv lle, Arthur Powell.
T flin, Charles A. Krout.
Toledo, William Wallace Chalmers.
Troy Charles L. Van Cleve.
Uhrichsville, L. E. Everett.
Urbana, I. N. Keyser.
Vanwert, J P. Sharkey.
Warren, C E. Carey
Washi gton C. H H. R. McVay.
Wellston, Ezekiel Wallace Patterson.
Wellsville, James L. MacDonald.
Wooster Char es Haupert.
Xen a, Edwin B. Cox.
Youngstown, N. H. Chaney.
Zanesville, W. D. Lash.

OKLAHOMA.

Guthrie, James R. Campbell.
Oklahoma, Ed. S. Vaught.

OREGON.

Astoria, A. L. Clark.
Baker City, J. A. Churchill.
Portland, Frank Rigler.
Salem, L. R. Traver.

PENNSYLVANIA.

Allegheny, John Morrow.
Allentown, Francis D. Raub.
Altoona, D. S. Keith.
Archbald, J C Taylor
Ashl nd, William C Estler.
Ashley, T. B. Harrison.
Bangor, Wm. H. Lindeman.
Beaverfalls, Edward Maguire.
Bellefonte, David O. Etters.
Bethlehem, Fred W Robbins.
Braddock, Gran Norris.
Bradford E. E. Miller.
Bristol, Louise D. Baggs.
Butler, John A. Gibson.
Carbondale, Elmer E. Garr.
Carlisle, I. L. Bryner.
Carnegie, W. S. Bryant,a
Chambersburg Samuel Gelwix.
Charleroi, J. A. Snodgrass.
Chester, A. Duncan Yocum.
Columbia, Daniel Fleisher.
Connellsville, J. P. Wiley.
Conshohocken, J. Horace Landis.
Corry, W. W. Fell.
Danville, U. L. Gordy.
Dickson City, M. J. Lloyd.
Dubois, W. L. Greene.
Dunmore, C. F. Hoban.
Duquesne, A. V. McKee,a
Easton William W. Cottingham.
Edwardsdale, J O. Hermann.
Erie, H. C. Missimer.
Etna, J. Q. A. Irvine,a
Forest City C. T Thorpe,a
Fran lin, N P Kinsley
Greensburg E. J Shives.
Greenville, A. H Wright.
Hanover, Thomas F. Throstwaite.
Harrisburg, Lemuel O. Foose.
Hazl on Davi Harman.
Homestead, John C Kendall.
Huntington, E. R. Barclay.
Indiana, W. S. Trainer.
Jeannette, John W. Anthony.
Johnstown, J. M. Berkey.
Kane, T. E. Lytle.
Lancaster, R. K. Buehrle.
Landford, A. A. Killian.
Latrobe, A. A. Streng.
Lebanon, R. T Adams.
Lehighton A. L. Custer,b
Lockhaven, John A. Robb.
McKeesport, J. Burdette Richey.
McKees Rocks, F. H. Powers,a
Mahanoy City William N. Ehrhart.
Manchunk, James J. Bevan.
Meadville, Ulysses G Smith.
Middletown, H. Wickey.
Millville, S. J Johnston,a
Milton A. Reist Rutt.

a Principal. b Supervising principal.

III.—College Presidents.

I.—*Colleges for men and coeducational colleges of liberal arts.*

Name of president.	University or college.	Address.
A. P. Montague, Ph. D., LL. D	Howard College	Eastlake, Ala.
Rev. S. M. Hosmer, D. D	Southern University	Greensboro, Ala.
J. P. Neff, M. S	Lafayette College	Lafayette, Ala.
Rev. Benedict Menges, O. S. B	St. Bernard College	St. Bernard, Ala.
Rev. William Tyrrell, S. J	Spring Hill College	Springhill, Ala.
John W. Abercrombie, LL. D	University of Alabama	University, Ala.
Frank Y. Adams, A. M	University of Arizona	Tucson, Ariz.
G. C. Jones, LL. D	Arkadelphia Methodist College	Arkadelphia, Ark.
John W. Conger, LL. D	Ouachita College	Do.
Eugene R. Long, Ph. D	Arkansas College	Batesville, Ark.
Rev. E. H. Liles	Arkansas Cumberland College	Clarksville, Ark.
Rev. S. Anderson, A. B	Hendrix College	Conway, Ark.
Henry S. Hartzog, LL. D	University of Arkansas	Fayetteville, Ark.
Rev. J. M. Cox, D. D	Philander Smith College	Little Rock, Ark.
B. I. Wheeler, Ph. D., LL. D	University of California	Berkeley, Cal.
Rev. George A. Gates, D. D., LL. D	Pomona College	Claremont, Cal.
Rev. G. W. Wadsworth, D. D	Occidental College	Los Angeles, Cal.
Rev. J. S. Glass, C. M., D. D	St. Vincent's College	Do.
William T. Randall, A. M., dean	University of Southern California	Do.
Rev. T. G. Brownson, D. D	California College	Oakland, Cal.
Walter A. Edwards, LL. D	Throop Polytechnic Institute	Pasadena, Cal.
Rev. John P. Frieden, S. J	St. Ignatius College	San Francisco, Cal.
Rev. Eli McClish, D. D	University of the Pacific	San Jose, Cal.
Rev. Robert E. Kenna, S. J	Santa Clara College	Santa Clara, Cal.
G. H. Wilkinson, Ph. B	Pacific Methodist College	Santa Rosa, Cal.
D. S. Jordan, Ph. D., LL. D	Leland Stanford Junior University	Stanford University
James H. Baker, LL. D	University of Colorado	Boulder, Colo.
Rev. W. F. Slocum, LL. D	Colorado College	Colorado Springs, C
Rev. J. J. Brown, S. J	College of the Sacred Heart	Denver, Colo.
Rev. Henry A. Buchtel, D. D., LL. D., chancellor.	University of Denver	University Park, Co
Rev. G. W. Smith, D. D., LL. D	Trinity College	Hartford, Conn.
Rev. B. P. Raymond, D. D., LL. D	Wesleyan University	Middletown, Conn.
Arthur T. Hadley, LL. D	Yale University	New Haven, Conn.
Rev. W. C. Jason, A. M., B. D	State College for Colored Students	Dover, Del.
Geo. A. Harter, Ph. D	Delaware College	Newark, Del.
Rev. Dennis J. O'Connell, S. T. D., rector.	Catholic University of America	Washington, D. C.
Charles W. Needham, LL. D	Columbian University	Do.
E. M. Gallaudet, Ph. D., LL. D	Gallaudet College	Do.
Rev. Jerome Daugherty, S. J	Georgetown University	Do.
Rev. Edward X. Fink, S. J	Gonzaga College	Do.
Rev. John Gordon, D. D	Howard University	Do.
Rev. Brother Abdas, F. S. C	St. John's College	Do.
John F. Forbes, Ph. D	John B. Stetson University	Deland, Fla.
Thos. H. Taliaferro, Ph. D	University of Florida	Lake City, Fla.
Rev. Charles H. More, Ph. D	St. Leo College	St. Leo, Fla.
A. A. Murphree, A. M	Florida State College	Tallahassee, Fla.
Rev. Wm. F. Blackman, Ph. D	Rollins College	Winterpark, Fla.
Walter B. Hill, LL. D., chancellor.	University of Georgia	Athens, Ga.
Rev. George Sale, A. M	Atlanta Baptist College	Atlanta, Ga.
Rev. Horace Bumstead, D. D	Atlanta University	Do.
Rev. J. M. Henderson, D. D	Morris Brown College	Do.
W. Claude Williams, A. B	Bowdon College	Bowdon, Ga.
Joseph S. Stewart, A. M	North Georgia Agricultural College	Dahlonega, Ga.
P. D. Pollock, LL. D	Mercer University	Macon, Ga.
Rev. J. E. Dickey	Emory College	Oxford, Ga.
	Clark University	South Atlanta, Ga.
William F. Quillian, jr	Nannie Lou Warthen Institute	Wrightsville, Ga.
Rev. Joseph A. Sharp, A. B	Young Harris College	Young Harris, Ga.
James A. MacLean, Ph. D	University of Idaho	Moscow, Idaho.
Rev. Harry B. Gough	Hedding College	Abingdon, Ill.
Rev. E. M. Smith, D. D	Illinois Wesleyan University	Bloomington, Ill.
Rev. M. J. Marsile, C. S. V	St. Viateur's College	Bourbonnais, Ill.
W. H. Bradley, Ph. D., dean	Blackburn College	Carlinville, Ill.
Rev. Fred L. Sigmund, D. D	Carthage College	Carthage, Ill.
Rev. Henry J. Dumbach, S. J	St. Ignatius College	Chicago, Ill.
Rev. John Kruszynski, C. R	St. Stanislaus College	Do.
Rev. Wm. R. Harper, Ph. D., D. D., LL. D.	University of Chicago	Do.
A. R. Taylor, Ph. D	James Millikin University	Decatur, Ill.
W. E. Lugenbeel, Ph. D	Austin College	Effingham, Ill.
Rev. Daniel Irion	Evangelical Proseminary	Elmhurst, Ill.
Robert E. Hieronymus, A. M	Eureka College	Eureka, Ill.
Edmund J. James, Ph. D. LL. D	Northwestern University	Evanston, Ill.
Rev. J. A. Leavitt, D. D	Ewing College	Ewing, Ill.
J. E. Bittinger, A. M	Northern Illinois College	Fulton, Ill.
Rev. Thomas McClelland, D. D	Knox College	Galesburg, Ill.
Rev. Charles E. Nash, S. T. D	Lombard College	Do.
Wilson T. Hogue, Ph. B	Greenville College	Greenville, Ill.

I.—*Colleges for men and coeducational colleges of liberal arts*—Continued.

Name of president.	University or college.	Address.
Rev. Clifford W. Barnes, A. M.	Illinois College	Jacksonville, Ill.
Rev. Richard D. Harlan, D. D.	Lake Forest College	Lake Forest, Ill.
M. H. Chamberlin, LL. D.	McKendree College	Lebanon, Ill.
Rev. J. L. Goodknight, D. D.	Lincoln College	Lincoln, Ill.
Rev. Thos. H. McMichael, D. D.	Monmouth College	Monmouth, Ill.
Rev. H. J. Kiekhoefer, Ph. D.	Northwestern College	Naperville, Ill.
Rev. John Miller, O. S. B., rector.	St. Bede College	Peru, Ill.
Rev. Anselm Mueller, O. S. F.	St. Francis Solanus College	Quincy, Ill.
Gustav A. Andreen, Ph. D.	Augustana College	Rock Island, Ill.
Rev. Samuel Macke, O. S. F., rector.	St. Joseph's College	Teutopolis, Ill.
Rev. Stanley A. McKay, D. D.	Shurtleff College	Upper Alton, Ill.
Andrew S. Draper, LL. D.	University of Illinois	Urbana, Ill.
Rev. J. A. Hawkins, A. M.	Westfield College	Westfield, Ill.
Rev. C. A. Blanchard, D. D.	Wheaton College	Wheaton, Ill.
William L. Bryan, Ph. D.	Indiana University	Bloomington, Ind.
Rev. Wm. P. Kane, D. D.	Wabash College	Crawfordsville, Ind.
Rev. Martin Luecke	Concordia College	Fort Wayne, Ind.
Rev. William T. Stott, D. D., LL. D.	Franklin College	Franklin, Ind.
Rev. E. H. Hughes	De Pauw University	Greencastle, Ind.
	Hanover College	Hanover, Ind.
Scot Butler, LL. D.	Butler College	Irvington, Ind.
Rev. L. J. Aldrich, D. D.	Union Christian College	Merom, Ind.
Rev. C. W. Lewis, D. D.	Moores Hill College	Moores Hill, Ind.
Rev. A. Morrissey, C. S. C.	University of Notre Dame	Notre Dame, Ind.
Robert L. Kelly, Ph. M.	Earlham College	Richmond, Ind.
Rev. A. Schmitt, O. S. B.	St. Meinrad College	St. Meinrad, Ind.
Rev. John H. Shilling, Ph. D., S. T. D., acting.	Taylor University	Upland, Ind.
J. H. Scott, A. B	Indian University	Bacone, Ind. T.
Rev. A. Grant Evans	Henry Kendall College	Muscogee, Ind. T.
Rev. S. B. McCormick, D. D.	Coe College	Cedar Rapids, Iowa.
J. Frederick Hirsch, A. M.	Charles City College	Charles City, Iowa.
O. Kraushaar	Wartburg College	Clinton, Iowa.
D. P. Smith	Amity College	College Springs, Iowa.
Rev. C. K. Preus	Luther College	Decorah, Iowa.
Rev. George D. Adams, D. D.	Des Moines College	Des Moines, Iowa.
Hill M. Bell, A. M.	Drake University	Do.
Rev. John P. Carroll, D. D.	St. Joseph's College	Dubuque, Iowa.
Rev. F. W. Hinitt, Ph. D., D. D.	Parsons College	Fairfield, Iowa.
Rev. T. J. Bassett, D. D.	Upper Iowa University	Fayette, Iowa.
Rev. Dan F. Bradley, D. D.	Iowa College	Grinnell, Iowa.
Rev. F. W. Grossman, A. B.	Lenox College	Hopkinton, Iowa.
Charles E. Shelton, LL. D.	Simpson College	Indianola, Iowa.
Geo. E. MacLean, Ph. D., LL. D.	State University of Iowa	Iowa City, Iowa.
Herbert S. Salisbury, B. S.	Graceland College	Lamoni, Iowa.
Carlyle Summerbell, A. M.	Palmer College	Legrand, Iowa.
Rev. E. S. Havighorst, D. D.	German College	Mount Pleasant, Iowa.
Rev. John W. Hancher, S. T. D.	Iowa Wesleyan University	Do.
Rev. Wm. F. King, D. D., LL. D.	Cornell College	Mount Vernon, Iowa.
A. Rosenberger, A. B., LL. B.	Penn College	Oskaloosa, Iowa.
L. A. Garrison, A. B., vice-pres.	Central University of Iowa	Pella, Iowa.
Rev. W. S. Lewis, D. D.	Morningside College	Sioux City, Iowa.
Rev. E. E. Reed, D. D.	Buena Vista College	Storm Lake, Iowa.
Rev. L. Bookwalter, D. D.	Western College	Toledo, Iowa.
Rev. Jacob A. Clutz, D. D.	Midland College	Atchison, Kans.
Rev. I. Wolf, O. S. B., D. D.	St. Benedict's College	Do.
Rev. L. H. Murlin, D. D.	Baker University	Baldwin, Kans.
Rev. J. C. Miller, D. D.	College of Emporia	Emporia, Kans.
Amos A. Davis, A. M.	Highland University	Highland, Kans.
P. O. Bonebrake, A. M.	Campbell College	Holton, Kans.
Rev. D. S. Stephens, D. D., chancellor.	Kansas City University	Kansas City, Kans.
Frank Strong, Ph. D.	University of Kansas	Lawrence, Kans.
T. W. Bellingham, Ph. D.	Kansas Christian College	Lincoln, Kans.
Rev. C. A. Swensson, Ph. D., D. D.	Bethany College	Lindsborg, Kans.
J. D. S. Riggs, Ph. D., L. H. D.	Ottawa University	Ottawa, Kans.
Rev. James McCabe, S. J.	St. Mary's College	St. Marys, Kans.
W. F. Hoyt, A. B.	Kansas Wesleyan University	Salina, Kans.
Rev. F. M. Spencer, D. D.	Cooper Memorial College	Sterling, Kans.
Rev. Norman Plass, D. D.	Washburn College	Topeka, Kans.
Rev. N. J. Morrison, D. D., LL. D.	Fairmount College	Wichita, Kans.
Edmund Stanley, A. M.	Friends University	Do.
Rev. A. W. Meyer	St. John's Lutheran College	Winfield, Kans.
George F. Cook, Ph. D.	Southwest Kansas College	Do.
Rev. J. P. Faulkner, A. M.	Union College	Barbourville, Ky.
Rev. Wm. G. Frost, Ph. D.	Berea College	Berea, Ky.
Rev. Wm. C. Roberts, D. D., LL. D.	Central University of Kentucky	Danville, Ky.
Rev. Baron D. Gray, D. D.	Georgetown College	Georgetown, Ky.
Rev. J. H. Burnett, A. M.	Liberty College	Glasgow, Ky.
A. C. Kuykendall, A. B.	South Kentucky College	Hopkinsville, Ky.
Rev. Burris A. Jenkins, A. M., B. D.	Kentucky University	Lexington, Ky.
J. K. Patterson, Ph. D., LL. D.	State College of Kentucky	Do.

I.—*Colleges for men and coeducational colleges of liberal arts*—Continued.

Name of president.	University or college.	Address.
William H. Harrison, A. M	Bethel College	Russellville, Ky.
Rev. Michael Jaglowicz, C. R	St. Mary's College	St. Marys, Ky.
Rev. John L. Weber, D. D., Litt. D.	Kentucky Wesleyan College	Winchester, Ky.
Thomas D. Boyd, LL. D	Louisiana State University	Baton Rouge, La.
Rev. M. Thouvenin, S. M.	Jefferson College	Convent, La.
Rev. Henry B. Carré, A. B., B. D.	Centenary College of Louisiana	Jackson, La.
Rev. Henry S. Maring, S. J	College of the Immaculate Conception.	New Orleans, La.
R. W. Perkins, Ph. D	Leland University	Do.
Frederic H. Knight, Ph. D	New Orleans University	Do.
Oscar Atwood, A. M	Straight University	Do.
E. A. Alderman, D. C. L., LL. D	Tulane University	Do.
Rev. Wm. D. Hyde, D. D., LL. D	Bowdoin College	Brunswick, Me.
Rev. G. C. Chase, D. D., LL. D	Bates College	Lewiston, Me.
George E. Fellows, Ph. D., LL. D	University of Maine	Orono, Me.
Rev. Charles L. White, D. D	Colby College	Waterville, Me.
Thomas Fell, Ph. D., LL. D	St. John's College	Annapolis, Md.
Ira Remsen, M. D., Ph. D., LL. D	Johns Hopkins University	Baltimore, Md.
Rev. John F. Quirk, S. J	Loyola College	Do.
Rev. John O. Spencer, Ph. D	Morgan College	Do.
James W. Cain, A. M	Washington College	Chestertown, Md.
R. W. Silvester	Maryland Agricultural College	Collegepark, Md.
Rev. Brother Abraham	Rock Hill College	Ellicott City, Md.
Rev. C. B. Schrantz, S. S	St. Charles College	Do.
Rev. Wm. L. O'Hara, LL. D	Mount St. Mary's College	Mount St. Marys, Md
Rev. James Fraser, Ph. D	New Windsor College	New Windsor, Md.
Rev. Thomas H. Lewis, D. D	Western Maryland College	Westminster, Md.
Rev. George Harris, D. D., LL. D	Amherst College	Amherst, Mass.
Rev. William Gannon, S. J	Boston College	Boston, Mass.
Charles W. Eliot, LL. D	Harvard University	Cambridge, Mass.
Rev. Samuel H. Lee, A. M	French-American College	Springfield, Mass.
Rev. Elmer H. Capen, D. D., LL. D	Tufts College	Tufts College, Mass.
Rev. Henry Hopkins, D. D	Williams College	Williamstown, Mass.
G. Stanley Hall, Ph. D., LL. D	Clark University	Worcester, Mass.
Rev. Joseph F. Hanselman, S. J	College of the Holy Cross	Do.
Rev. Thomas H. Lewis, D. D	Adrian College	Adrian, Mich.
Samuel Dickie, LL. D	Albion College	Albion, Mich.
Rev. August F. Bruske, D. D	Alma College	Alma, Mich.
James B. Angell, LL. D	University of Michigan	Ann Arbor, Mich.
Rev. L[illegible] Kellinger, S. J	Detroit College	Detroit, Mich.
Joseph [illegible], LL. D	Hillsdale College	Hill-dale, Mich.
Gerrit J. K[illegible], Ph. D	Hope College	Holland, Mich.
A. G. Sloeum, [illegible]	Kalamazoo College	Kalamazoo, Mich.
Rev. W. G. Sperry, D. D	Olivet College	Olivet, Mich.
Rev. P. Engel, O. S. B., Ph. D	St. John's University	Collegeville, Minn.
Georg Sverdrup	Augsburg Seminary	Minneapolis, Minn.
Cyrus Northrop, LL. D	University of Minnesota	Do.
Rev. Wm. H. Sallmon, A. M	Carleton College	Northfield, Minn.
Rev. John N. Kildahl	St. Olaf College	Do.
Rev. Geo. H. Bridgman, D. D., LL. D.	Hamline University	St. Paul, Minn.
James Wallace, Ph. D	Macalester College	Do.
Rev. M. Wahlstrom, Ph. D	Gustavus Adolphus College	St. Peter, Minn.
Edwin A. Day	Parker College	Winnebago City, Mi
Rev. Wm. T. Lowrey, D. D	Mississippi College	Clinton, Miss.
Rev. Wm. W. Foster, jr., D. D	Rust University	Holly Springs, Miss.
Rev. W. B. Murrah, D. D., LL. D	Millsaps College	Jackson, Miss.
R. B. Fulton, LL. D., chancellor	University of Mississippi	University, Miss.
Rev. R. E. L. Burks, D. D	Southwest Baptist College	Bolivar, Mo.
	Pike College	Bowling Green, Mo.
Rev. B. W. Baker, Ph. D., D. D	Missouri Wesleyan College	Cameron, Mo.
Carl Johann, LL. D	Christian University	Canton, Mo.
Rev. J. E. Dillard, A. B	Clarksburg College	Clarksburg, Mo.
Richard H. Jesse, LL. D	University of Missouri	Columbia, Mo.
Rev. James C. Morris, D. D	Central College	Fayette, Mo.
	Westminster College	Fulton, Mo.
Rev. C. C. Hemenway, Ph. D	Pritchett College	Glasgow, Mo.
Jere T. Muir, LL. D	Lagrange College	Lagrange, Mo.
Rev. J. P. Greene, D. D., LL. D	William Jewell College	Liberty, Mo.
Rev. Wm. H. Black, D. D	Missouri Valley College	Marshall, Mo.
W. W. Thomas	Morrisville College	Morrisville, Mo,
L. H. Gehman, A. M	Odessa College	Odessa, Mo.
L. M. McAfee, A. M	Park College	Parkville, Mo.
Rev. Brother Justin	Christian Brothers College	St. Louis, Mo.
Rev. W. B. Rogers, S. J	St. Louis University	Do.
W. S. Chaplin, LL. D., chancellor	Washington University	Do.
Rev. Homer T. Fuller, Ph. D., D. D	Drury College	Springfield, Mo.
Rev. J. A. Thompson, D. D	Tarkio College	Tarkio, Mo.
Geo. McA. Miller, Ph. D	Ruskin College	Trenton, Mo.
Rev. Geo. B. Addicks, D. D	Central Wesleyan College	Warrenton, Mo.
Oscar J. Craig, Ph. D	University of Montana	Missoula, Mont.
Rev. D. R. Kerr, Ph. D., D. D	Bellevue College	Bellevue, Nebr.
W. P. Aylsworth, LL. D	Cotner University	Bethany, Nebr.

I.—*Colleges for men and coeducational colleges of liberal arts*—Continued.

Name of president.	University or college.	Address.
Lewis A. Hoopes	Union College	College View, Nebr.
Rev. David B. Perry, D. D	Doane College	Crete, Nebr.
Rev. Geo. Sutherland, D. D	Grand Island College	Grand Island, Nebr.
Rev. E. Van Dyke Wight, A. M	Hastings College	Hastings, Nebr.
Rev. E. B. Andrews, D. D., LL. D., chancellor.	University of Nebraska	Lincoln, Nebr.
Rev. M. P. Dowling, S. J	Creighton University	Omaha, Nebr.
Rev. D. W. C. Huntington, D. D., LL. D., chancellor.	Nebraska Wesleyan University	University Place, Nebr.
Rev. Wm. E. Schell, D. D	York College	York, Nebr.
Rev. J. E. Stubbs, D. D., LL. D	State University of Nevada	Reno, Nev.
Rev. W. J. Tucker, D. D., LL. D	Dartmouth College	Hanover, N. H.
Rev. Abbot Hilary, O. S. B., D. D	St. Anselm's College	Manchester, N. H.
Rev. J. W. Fox, S. J	St. Peter's College	Jersey City, N. J.
Rev. G. Bien, O. S. B., director	St. Benedict's College	Newark, N. J.
Austin Scott, Ph. D., LL. D	Rutgers College	New Brunswick, N. J.
Woodrow Wilson, Ph. D., LL. D	Princeton University	Princeton, N. J.
Rev. John A. Stafford, S. T. L	Seton Hall College	South Orange, N. J.
William G. Tight, Ph. D	University of New Mexico	Albuquerque, N. Mex.
Rev. B. C. Davis, Ph. D., D. D	Alfred University	Alfred, N. Y.
Rev. Joseph F. Butler, O. F. M	St. Bonaventure's College	Allegany, N. Y.
Rev. Lawrence T. Cole, Ph. D	St. Stephen's College	Annandale, N. Y.
C. H. Levermore, Ph. D	Adelphi College	Brooklyn, N. Y.
Henry S. Snow, LL. D	Polytechnic Institute of Brooklyn	Do.
Brother Jerome, O. S. F	St. Francis College	Do.
Rev. Patrick McHale, C. M	St. John's College	Do.
Rev. Aloysius J. Pfeil, S. J	Canisius College	Buffalo, N. Y.
Rev. Almon Gunnison, D. D., LL. D	St. Lawrence University	Canton, N. Y.
Rev. M. W. Stryker, D. D., LL. D	Hamilton College	Clinton, N. Y.
Rev. L. C. Stewardson, A. M	Hobart College	Geneva, N. Y.
Rev. Geo. E. Merrill, D. D., LL. D	Colgate University	Hamilton, N. Y.
J. G. Schurman, Sc. D., LL. D	Cornell University	Ithaca, N. Y.
Rev. D. W. Hearn, S. J	College of St. Francis Xavier	New York, N. Y
John H. Finley, Ph. D., LL. D	College of the City of New York	Do.
Nicholas M. Butler, Ph. D., LL. D	Columbia University	Do.
Rev. Brother Jerome, F. S. C	Manhattan College	Do.
Rev. Geo. A. Pettit, S. J	St. John's College	Do.
Rev. H. M. MacCracken, D. D., LL. D., chancellor.	New York University	Do.
Rev. W. F. Likly, C. M	Niagara University	Niagara University, N. Y.
Rev. Rush Rhees, D. D., LL. D	University of Rochester	Rochester, N. Y.
Rev. A. V. V. Raymond, D. D., LL. D	Union College	Schenectady, N. Y.
Rev. J. R. Day, S. T. D., LL. D., chancellor.	Syracuse University	Syracuse, N. Y.
Rev. Leo Haid, D. D., O. S. B	St. Mary's College	Belmont, N. C.
F. P. Venable, Ph. D., LL. D	University of North Carolina	Chapelhill, N. C.
Rev. D. J. Sanders, D. D	Biddle University	Charlotte, N. C.
Henry L. Smith, Ph. D	Davidson College	Davidson, N. C.
Rev. John C. Kilgo, D. D	Trinity College	Durham, N. C.
Rev. W. W. Staley, D. D	Elon College	Elon College, N. C.
L. Lyndon Hobbs, A. M	Guilford College	Guilford College, N. C.
Rev. R. L. Fritz, A. M	Lenoir College	Hickory, N. C.
	North Carolina College	Mount Pleasant, N. C.
C. H. Mebane	Catawba College	Newton, N. C.
Chas. F. Meserve, LL. D	Shaw University	Raleigh, N. C.
Rev. William H. Goler, D. D	Livingstone College	Salisbury, N. C.
Rev. C. E. Taylor, D. D., Litt. B	Wake Forest College	Wake Forest, N. C.
James M. Robeson	Weaverville College	Weaverville, N. C.
Rev. John H. Morley, LL. D	Fargo College	Fargo, N. Dak.
W. Merrifield, A. M	University of North Dakota	University, N. Dak.
Rev. E. P. Robertson, D. D	Red River Valley University	Wahpeton, N. Dak.
Rev. A. B. Church, D. D	Buchtel College	Akron, Ohio.
Rev. Albert B. Riker, D. D	Mount Union College	Alliance, Ohio.
Alston Ellis, Ph. D., LL. D	Ohio University	Athens, Ohio.
Rev. E. O. Buxton, D. D., Ph. D	Baldwin University	Berea, Ohio.
Rev. C. Riemenschneider, Ph. D., D. D.	German Wallace College	Do.
Rev. David McKinney, D. D	Cedarville College	Cedarville, Ohio.
Rev. Albert A. Dierckes, S. J	St. Xavier College	Cincinnati, Ohio.
Howard Ayers, Ph. D., LL. D	University of Cincinnati	Do.
Rev. John I. Zahm, S. J	St. Ignatius College	Cleveland, Ohio.
Rev. C. F. Thwing, D. D., LL. D	Western Reserve University	Do.
Rev. L. H. Schuh, Ph. D	Capital University	Columbus, Ohio.
Rev. W. O. Thompson, D. D., LL. D.	Ohio State University	Do.
	Defiance College	Defiance, Ohio.
Rev. J. W. Bashford, Ph. D., D. D	Ohio Wesleyan University	Delaware, Ohio.
Rev. C. Manchester, D. D	Findlay College	Findlay, Ohio.
Rev. Wm. F. Peirce, L. H. D	Kenyon College	Gambier, Ohio.
Rev. Emory W. Hunt, D. D., LL. D	Denison University	Granville, Ohio.
J. A. Beattie, LL. D	Hiram College	Hiram, Ohio.
Rev. C. H. Eckhardt	Lima College	Lima, Ohio.
Rev. Alfred T. Perry, D. D	Marietta College	Marietta, Ohio.

L—*Colleges for men and coeducational colleges of liberal arts*—Continued.

Name of president.	University or college.	Address.
Rev. R. G. Campbell, D. D	Franklin College	New Athens, Ohio.
	Muskingum College	New Concord, Ohio.
Rev. Henry C. King, D. D	Oberlin College	Oberlin, Ohio.
Rev. Guy P. Benton, D. D	Miami University	Oxford, Ohio.
Rev. G. W. MacMillan, Ph. D., D. D.	Richmond College	Richmond, Ohio.
Rev. J. M. Davis, Ph. D., D. D	Rio Grande College	Rio Grande, Ohio.
James H. Beal, Sc. D	Scio College	Scio, Ohio.
Rev. Charles G. Heckert, D. D	Wittenberg College	Springfield, Ohio.
Rev. Charles E. Miller, D. D	Heidelberg University	Tiffin, Ohio.
George Scott, Ph. D., Litt. D	Otterbein University	Westerville, Ohio.
Rev. Joshua H. Jones, D. D	Wilberforce University	Wilberforce, Ohio.
Rev. Albert J. Brown, D. D	Wilmington College	Wilmington, Ohio.
Rev. Louis E. Holden, D. D., LL. D.	University of Wooster	Wooster, Ohio.
Stephen F. Weston, Ph. D., dean	Antioch College	Yellowsprings, Ohio.
D. R. Boyd, Ph. D	University of Oklahoma	Norman, Okla.
Wallace H. Lee, A. M	Albany College	Albany, Oreg.
Rev. C. C. Poling, Ph. D	Dallas College	Dallas, Oreg.
Prince L. Campbell, A. B	University of Oregon	Eugene, Oreg.
Wm. N. Ferrin, LL. D	Pacific University	Forestgrove, Oreg.
A. M. Brumback, A. M	McMinnville College	McMinnville, Oreg.
Edwin McGrew, M. S	Pacific College	Newberg, Oreg.
Rev. B. E. Emerick, A. M	Philomath College	Philomath, Oreg.
Rev. John H. Coleman, D. D	Willamette University	Salem, Oreg.
John A. Brashear, Sc. D., acting chancellor.	Western University of Pennsylvania	Allegheny, Pa.
Rev. Theodore L. Seip, D. D	Muhlenberg College	Allentown, Pa.
Rev. H. U. Roop, Ph. D	Lebanon Valley College	Annville, Pa.
Rev. Leander Schnerr, O. S. B	St. Vincent College	Beatty, Pa.
Rev. Arthur Staples, A. M	Beaver College	Beaver, Pa.
Rev. W. P. Johnston, D. D	Geneva College	Beaverfalls, Pa.
Rev. Aug. Schultz, D. D., L. H. D.	Moravian College	Bethlehem, Pa.
Rev. G. E. Reed, D. D., LL. D	Dickinson College	Carlisle, Pa.
Col. C. E. Hyatt, C. E	Pennsylvania Military College	Chester, Pa.
Rev. Henry T. Spangler, D. D	Ursinus College	Collegeville, Pa.
Rev. E. D. Warfield, LL. D	Lafayette College	Easton, Pa.
	Pennsylvania College	Gettysburg, Pa.
	Thiel College	Greenville, Pa.
Rev. I. C. Ketler, Ph. D., D. D	Grove City College	Grove City, Pa
Isaac Sharpless, Sc. D., LL. D	Haverford College	Haverford, Pa.
I. H. Brumbaugh, A. M., acting	Juniata College	Huntingdon, Pa.
Rev. J. S. Stahr, Ph. D., D. D	Franklin and Marshall College	Lancaster, Pa.
John H. Harris, Ph. D., LL. D	Bucknell University	Lewisburg, Pa.
Rev. Isaac N. Rendall, D. D	Lincoln University	Lincoln University, Pa.
Rev. Wm. H. Crawford, D. D	Allegheny College	Meadville, Pa.
Rev. James D. Woodring, D. D	Albright College	Myerstown, Pa.
Rev. R. G. Ferguson, D. D	Westminster College	New Wilmington, Pa.
Rev. R. E. Thompson, S. T. D	Central High School	Philadelphia, Pa.
Brother Wolfred	La Salle College	Do.
C. C. Harrison, LL. D., provost	University of Pennsylvania	Do.
Rev. M. A. Hehir, C. S. Sp	Holy Ghost College	Pittsburg, Pa.
Rev. George W. Enders, D. D	Susquehanna University	Selinsgrove, Pa.
Thomas M. Drown, LL. D	Lehigh University	South Bethlehem, Pa.
G. W. Atherton, LL. D	Pennsylvania State College	State College, Pa.
Joseph Swain, LL. D	Swarthmore College	Swarthmore, Pa.
Rev. L. A. Delurey, O. S. A	Villanova College	Villanova, Pa.
C. F. Ball, A. M	Volant College	Volant, Pa.
Rev. J. D. Moffat, D. D., LL. D	Washington and Jefferson College	Washington, Pa.
A. E. Turner, A. M	Waynesburg College	Waynesburg, Pa.
Rev. W. H. P. Faunce, D. D., LL. D.	Brown University	Providence, R. I.
Harrison Randolph, LL. D	College of Charleston	Charleston, S. C.
A. E. Spencer, A. M	Presbyterian College of South Carolina.	Clinton, S. C.
Rev. D. H. Johnson, D. D	Allen University	Columbia, S. C.
Benjamin Sloan	South Carolina College	Do.
Rev. Francis Y. Pressly, D. D	Erskine College	Duewest, S. C.
Rev. Edward M. Poteat, D. D	Furman University	Greenville, S. C.
Geo. B. Cromer, LL. D	Newberry College	Newberry, S. C.
Rev. L. M. Dunton, D. D	Claflin University	Orangeburg, S. C.
Henry N. Snyder, A. M	Wofford College	Spartanburg, S. C.
Rev. C. H. French, D. D	Huron College	Huron, S. Dak.
Rev. W. I. Graham, D. D	Dakota University	Mitchell, S. Dak.
Rev. I. P. Patch	Redfield College	Redfield, S. Dak.
Garrett Droppers, A. B	University of South Dakota	Vermilion, S. Dak.
Rev. H. K. Warren, LL. D	Yankton College	Yankton, S. Dak.
Rev. J. H. Race, D. D	Grant University	Athens, Tenn.
Rev. George D. Booth	King College	Bristol, Tenn.
G. F. Nicolassen, Ph. D., vice-chancellor.	Southwestern Presbyterian University.	Clarksville, Tenn.
Rev. Samuel A. Coile, D. D	Greeneville and Tusculum College	Greeneville, Tenn
James A. Tate, A. M., chancellor	American University of Harriman	Harriman, Tenn.
Rev. J. E. Lowery, A. M	Hiwassee College	Hiwassee College.

I.—*Colleges for men and coeducational colleges of liberal arts*—Continued.

Name of president.	University or college.	Address.
G. M. Savage, LL. D	Southwestern Baptist University	Jackson, Tenn.
	Carson and Newman College	Jefferson City, Tenn.
Rev. R. W. McGranahan, D. D	Knoxville College	Knoxville, Tenn.
Chas. W. Dabney, Ph. D., LL. D	University of Tennessee	Do.
D. E. Mitchell	Cumberland University	Lebanon, Tenn.
Rev. James T. Cooter, A. M	Washington College	Limestone, Tenn.
J. B. Reed	Bethel College	McKenzie, Tenn.
Rev. Samuel T. Wilson, D. D	Maryville College	Maryville, Tenn.
Brother Icarion	Christian Brothers College	Memphis, Tenn.
J. Hopwood, A. M	Milligan College	Milligan, Tenn.
Rev. James G. Merrill, D. D	Fisk University	Nashville, Tenn.
Rev. Peter B. Guernsey, A. M	Roger Williams University	Do.
James D. Porter, LL. D	University of Nashville	Do.
James H. Kirkland, Ph. D., LL. D., D. C. L., chancellor.	Vanderbilt University	Do.
Rev. Jay B. Hamilton, D. D	Walden University	Do.
B. Lawton Wiggins, LL. D., vice-chancellor.	University of the South	Sewanee, Tenn.
W. N. Billingsley, A. M	Burritt College	Spencer, Tenn.
O. C. Hulvey, A. M	Sweetwater College	Sweetwater, Tenn.
Rev. John T. Boland, C. S. C	St. Edward's College	Austin, Tex.
Wm. L. Prather, LL. D	University of Texas	Do.
J. H. Grove, A. M	Howard Payne College	Brownwood, Tex.
Rev. George H. MacAdam, D. D	Fort Worth University	Fort Worth, Tex.
Rev. H. A. Boaz, A. M	Polytechnic College	Do.
Rev. D. Murphy, S. J	St. Mary's University	Galveston, Tex.
Robert S. Hyer, LL. D., regent	Southwestern University	Georgetown, Tex.
W. I. Gibson, A. M	Burleson College	Greenville, Tex.
Rev. M. W. Dogan, Ph. D	Wiley University	Marshall, Tex.
Ely V. Zollars, LL. D	Texas Christian University	North Waco, Tex.
L. C. Kirkes	Austin College	Sherman, Tex.
Rev. Thomas S. Clyce, D. D	Trinity University	Waxahachie, Tex.
Samuel P. Brooks, A. M	Baylor University	Waco, Tex.
Rev. I. M. Burgan, D. D	Paul Quinn College	Do.
James H. Linford, B. S	Brigham Young College	Logan, Utah.
Joseph T. Kingsbury, Ph. D., Sc. D	University of Utah	Salt Lake City, Utah
Rev. George Bailey, Ph. D	Westminster College	Do.
Rev. M. H. Buckham, D. D., LL. D	University of Vermont	Burlington, Vt.
Ezra Brainerd, LL. D	Middlebury College	Middlebury, Vt.
Rev. Allan D. Brown, LL. D	Norwich University	Northfield, Vt.
Robert E. Blackwell, A. M	Randolph-Macon College	Ashland, Va.
W. B. Yount	Bridgewater College	Bridgewater, Va.
James M. Page, Ph. D., chairman	University of Virginia	Charlottesville, Va.
Rev. R. G. Waterhouse, D. D	Emory and Henry College	Emory, Va.
Rev. J. W. Rosebro, D. D	Fredericksburg College	Fredericksburg, Va.
Rev. Richard McIlwaine, D. D	Hampden-Sidney College	Hampden-Sidney, Va.
George H. Denny, Ph. D	Washington and Lee University	Lexington, Va.
F. W. Boatwright, LL. D	Richmond College	Richmond, Va.
M. MacVicar, Ph. D., LL. D	Virginia Union University	Do.
Rev. John A. Morehead, D. D	Roanoke College	Salem, Va.
L. G. Tyler, LL. D	College of William and Mary	Williamsburg, Va.
A. C. Jones, Ph. D	Vashon College	Burton, Wash.
Thomas F. Kane, Ph. D	University of Washington	Seattle, Wash.
Rev. R. J. Crimont, S. J	Gonzaga College	Spokane, Wash.
Orman C. Palmer, A. M., acting	Puget Sound University	Tacoma, Wash.
F. B. Gault, Ph. D	Whitworth College	Do.
Rev. S. B. L. Penrose, A. B., B. D	Whitman College	Walla Walla, Wash.
D. W. Shaw, A. M	Morris Harvey College	Barboursville, W. Va.
T. E. Cramblet	Bethany College	Bethany, W. Va.
D. B. Purinton, Ph. D., LL. D	West Virginia University	Morgantown, W. Va.
Rev. S. Plantz, Ph. D., D. D	Lawrence University	Appleton, Wis.
Rev. Edward D. Eaton, D. D., LL. D	Beloit College	Beloit, Wis.
Rev. H. A. Muehlmeier, D. D	Mission House	Franklin, Wis.
Charles R. Van Hise, Ph. D	University of Wisconsin	Madison, Wis.
Rev. Wm. C. Doland, D. D	Milton College	Milton, Wis.
Rev. M. J. F. Albrecht	Concordia College	Milwaukee, Wis.
Rev. Alexander J. Burrowes, S. J	Marquette College	Do.
Rev. Richard C. Hughes, D. D	Ripon College	Ripon, Wis.
Rev. A. F. Ernst	Northwestern University	Watertown, Wis.
Rev. Elmer E. Smiley, D. D	University of Wyoming	Laramie, Wyo.

II.—*Colleges for women.*

Name of president.	University or college.	Address.
Rev. Edgar M. Glenn, D. D.	Athens Female College	Athens, Ala.
Thos. F. Jones	Union Female College	Eufaula, Ala.
Rev. Robert G. Patrick, D. D.	Judson Female Institute	Marion, Ala.
Jas. D. Wade, A. M	Marion Female Seminary	Do.
Rev. Frank B. Webb, D. D	Isbell College	Talladega, Ala.
Rev. B. F. Giles, A. M.	Central Female College	Tuscaloosa, Ala
Rev. W. F. Melton, Ph. D	Tuscaloosa Female College	Do.
John Massey, LL. D	Alabama Conference Female College	Tuskegee, Ala.
W. W. Rivers, A. M	Central Baptist College	Conway, Ark.
Mrs. C. T. Mills	Mills College	Mills College, Cal.
Sister Mary Bernardine	College of Notre Dame	San Jose, Cal.
Sister Georgiana	Trinity College	Washington, D. C.
Mrs. M. A. Lipscomb	Lucy Cobb Institute	Athens, Ga.
Chas. C. Cox, Ph. D	Southern Female College	College Park, Ga.
Rev. Homer Bush, A. M	Andrew Female College	Cuthbert, Ga.
Miss Mabel Head, A. M	Dalton Female College	Dalton, Ga.
C. H. S. Jackson, A. M	Monroe Female College	Forsyth, Ga.
A. W. Van Hoose; H. J. Pearce	Brenau College	Gainesville, Ga.
Rufus W. Smith, A. M	Lagrange Female College	Lagrange, Ga.
M. W. Hatton, A. M., Litt. M	Southern Female College	Do.
Du Pont Guerry	Wesleyan Female College	Macon, Ga.
T. J. Simmons, A. M	Shorter College	Rome, Ga.
Rev. Joseph R. Harker, Ph. D	Illinois Woman's College	Jacksonville, Ill.
Rev. C. W. Leffingwell, D. D., rector	St. Mary's School	Knoxville, Ill.
Julia H. Gulliver, Ph. D	Rockford College	Rockford, Ill.
Rev. F. R. Millspaugh, D. D	College of the Sisters of Bethany	Topeka, Kans.
Rev. Benj. F. Cabell	Potter College	Bowling Green, Ky.
John C. Acheson, A. M	Caldwell College	Danville, Ky.
Th. Smith, A. M	Beaumont College	Harrodsburg, Ky.
Rev. Edmund Harrison, A. M	Bethel Female College	Hopkinsville, Ky.
B. C. Hagerman, A. M	Hamilton Female College	Lexington, Ky.
H. B. McClellan, Litt. D	Sayre Female Institute	Do.
Rev. C. C. Fisher, A. M	Millersburg Female College	Millersburg, Ky.
Mrs. J. B. Skinner	Jessamine Female Institute	Nicholasville, Ky.
J. Byron La Rue	Owensboro Female College	Owensboro, Ky.
B. E. Atkins, A. M	Logan Female College	Russellville, Ky.
B. J. Pinkerton	Stanford Female College	Stanford, Ky.
Rev. F. W. Lewis, A. B	Silliman Collegiate Institute	Clinton, La.
G. W. Thigpen, A. M	Louisiana Female College	Keatchie, La.
T. S. Sligh, A. M	Mansfield Female College	Mansfield, La.
Brandt V. B. Dixon, LL. D	H. Sophie Newcomb Memorial College	New Orleans, La.
Rev. Wilbur F. Berry	Maine Wesleyan Seminary and Female College	Kents Hill, Me.
O. H. Perry, A. B	Westbrook Seminary	Woodfords, Me.
Mary Theophila	Notre Dame of Maryland	Baltimore, Md.
Rev. John F. Goucher, D. D., LL. D	Woman's College of Baltimore	Do.
J. H. Apple, A. M	Woman's College	Frederick, Md.
	Kee Mar College	Hagerstown, Md.
Rev. J. H. Turner, D. D	Maryland College for Young Ladies	Lutherville, Md.
C. C. Bragdon, LL. D	Lasell Seminary for Young Women	Auburndale, Mass.
Miss Agnes Irwin, dean	Radcliffe College	Cambridge, Mass.
Rev. L. Clark Seelye, D. D., LL. D.	Smith College	Northampton, Mass
Mary E. Woolley, Litt. D., L. H. D.	Mount Holyoke College	South Hadley, Mass
Miss Caroline Hazard, Litt. D	Wellesley College	Wellesley, Mass.
Katharine I. Hutchison, A. M., prin.	Albert Lea College	Albert Lea, Minn.
B. G. Lowrey, A. M	Blue Mountain Female College	Blue Mountain, Miss
A. F. Watkins	Whitworth Female College	Brookhaven, Miss.
Rev. John L. Johnson, D. D., LL. D.	Hillman College	Clinton, Miss.
Hon. A. A. Kincannon	Industrial Institute and College	Columbus, Miss.
J. A. Sanderson, principal	Central Mississippi Institute	French Camp, Miss.
L. T. Fitzhugh, A. M	Belhaven College for Young Ladies	Jackson, Miss.
J. L. Logan	McComb Female Institute	McComb, Miss
J. W. Beeson, A. M	East Mississippi Female College	Meridian, Miss.
Hon. James R. Preston, A. M	Stanton College for Young Ladies	Natchez, Miss.
Rev. J. W. Malone, D. D	Woman's College	Oxford, Miss.
S. Decatur Lucas	Chickasaw Female College	Pontotoc, Miss.
Rev. L. S. Jones, A. M	Port Gibson Female College	Port Gibson, Miss.
Mrs. W. T. Moore	Christian College	Columbia, Mo.
Rev. S. F. Taylor, D. D	Stephens College	Do.
Rev. Hiram D. Groves	Howard Payne College	Fayette, Mo.
Rev. J. M. Spencer	Synodical Female College	Fulton, Mo.
Edward W. White, A. M	Baptist College for Young Ladies	Lexington, Mo.
Rev. Z. M. Williams, D. D	Central Female College	Do.
C. M. Williams, A. M	Liberty Ladies College	Liberty, Mo.
J. W. Million, A. M	Hardin College	Mexico, Mo.
Mrs. V. A. C. Stockard	Cottey College for Young Ladies	Nevada, Mo.
M. H. Reaser, Ph. D	Lindenwood College for Women	St. Charles, Mo.
Jasper W. Freley, M. S., acting	Wells College	Aurora, N. Y.
Truman J. Backus, LL. D	Packer Collegiate Institute	Brooklyn, N. Y.
Rev. A. C. Mackenzie, D. D.	Elmira College	Elmira, N. Y.
Laura D. Gill, A. M., dean	Barnard College	New York, N. Y.
Rev. J. M. Taylor, D. D., LL. D	Vassar College	Poughkeepsie, N. Y.
Archibald A. Jones, A. M	Asheville College for Young Women	Asheville, N. C.

II.—*Colleges for women*—Continued.

Name of president.	University or college.	Address.
Rev. C. B. King, A. M	Elizabeth College	Charlotte, N. C.
S. A. Wolff, A. M	Gaston College	Dallas, N. C.
Mrs. Lucy H. Robertson	Greensboro Female College	Greensboro, N. C.
A. J. Bolin, A. B	Claremont Female College	Hickory, N. C.
M. S. Davis, A. M	Louisburg Female College	Louisburg, N. C.
John C. Scarborough, A. B	Chowan Baptist Female Institute	Murfreesboro, N. C.
F. P. Hobgood, A. M	Oxford Female Seminary	Oxford, N. C.
Rev. R. T. Vann, D. D	Baptist Female University	Raleigh, N. C.
Rev. John H. Clewell, Ph. D	Salem Female Academy and College	Salem, N. C.
Rev. John H. Thomas, D. D	Oxford College	Oxford, Ohio.
Leila S. McKee, Ph. D	Western College	Do.
Miss Mary Evans, Litt. D	Lake Erie College	Painesville, Ohio.
Rev. J. W. Knappenberger, A. M	Allentown College for Women	Allentown, Pa.
Rev. J. Max Hark, D. D	Moravian Seminary and College for Women.	Bethlehem, Pa.
Rev. S. B. Linhart, A. M	Blairsville College	Blairsville, Pa.
M. Carey Thomas, Ph. D., LL. D	Bryn Mawr College	Bryn Mawr, Pa.
	Wilson College	Chambersburg, Pa.
E. E. Campbell, Ph. D	Irving Female College	Mechanicsburg, Pa.
Rev. Chalmers Martin, D. D	Pennsylvania College for Women	Pittsburg, Pa.
Rev. W. W. Daniel, D. D	Columbia Female College	Columbia, S. C.
Miss Euphemia McClintock, A. B.	Presbyterian College for Women	Do.
Rev. James Boyce	Due West Female College	Duewest, S. C.
Lee D. Lodge, Ph. D	Limestone College	Gaffney, S. C.
A. S. Townes	Greenville College for Women	Greenville, S. C.
Edward C. James, Litt. D	Greenville Female College	Do.
Robert P. Pell, A. B	Converse College	Spartanburg, S. C.
Rev. B. G. Clifford, D. D., Ph. D	Clifford Seminary	Union, S. C.
Rev. S. Lander, D. D	Williamston Female College	Williamston, S. C.
	Sullins College	Bristol, Tenn.
R. E. Hatton, Ph. D	Brownsville Female College	Brownsville, Tenn.
J. W. Hardy	Tennessee Female College	Franklin, Tenn.
Z. K. Griffin, B. S	Howard Female College	Gallatin, Tenn.
Rev. A. B. Jones, D. D., LL. D	Memphis Conference Female Institute	Jackson, Tenn.
Miss V. O. Wardlaw, A. M	Soule Female College	Murfreesboro, Tenn.
C. A. Folk, A. B	Boscobel College	Nashville, Tenn.
J. D. Blanton, LL. D	Ward Seminary	Do.
Rev. T. L. Bryan	Martin Female College	Pulaski, Tenn.
Rev. T. P. Walton	Synodical Female College	Rogersville, Tenn.
Rev. C. T. Carlton, A. B	Carlton College	Bonham, Tex.
W. A. Wilson, D. D	Baylor Female College	Belton, Tex.
W. K. Strother	Chappell Hill Female College	Chapelhill, Tex.
Rev. J. E. Harrison, A. B	San Antonio Female College	San Antonio, Tex.
A. Q. Nash, C. E	Mary Nash College	Sherman, Tex.
Rev. W. M. Dyer, A. M	Martha Washington College	Abingdon, Va.
Miss Kate M. Hunt, A. B	Stonewall Jackson Institute	Do.
J. T. Henderson, A. M	Southwest Virginia Institute	Bristol, Va.
Rev. L. H. Shuck, D. D	Albemarle College for Young Ladies	Charlottesville, Va.
	Roanoke Female College	Danville, Va.
Miss Matty L. Cocke	Hollins Institute	Hollins, Va.
Rev. A. B. Warwick	Randolph-Macon Woman's College	Lynchburg, Va.
W. W. Smith, LL. D	Marion Female College	Marion, Va.
Rev. J. J. Scherer, D. D	Southern Female College	Petersburg, Va.
Arthur K. Davis, A. M	Woman's College	Richmond, Va.
Rev. James Nelson, D. D	Valley Female College	Luray, Va.
Rev. R. L. Telford, D. D	Lewisburg Female Institute	Lewisburg, W. Va.
Miss Ellen C. Sabin, A. M	Milwaukee-Downer College	Milwaukee, Wis.

III.—*Schools of technology.*

Charles C. Thach, A. M	Alabama Polytechnic Institute	Auburn, Ala.
Barton O. Aylesworth, LL. D	Colorado Agricultural College	Fort Collins, Colo.
Victor C. Alderson, Sc. D	State School of Mines	Golden, Colo.
Rev. R. W. Stimson, A. M	Connecticut Agricultural College	Storrs, Conn.
Lyman Hall, LL. D	State School of Technology	Atlanta, Ga.
Rev. Frank W. Gunsaulus, D. D	Armour Institute of Technology	Chicago, Ill.
W. E. Stone, Ph. D	Purdue University	Lafayette, Ind.
Carl L. Mees, Ph. D	Rose Polytechnic Institute	Terre Haute, Ind.
E. W. Stanton, M. S., acting	Iowa College of Agriculture and Mechanic Arts.	Ames, Iowa.
Ernest R. Nichols, A. M	Kansas Agricultural College	Manhattan, Kans.
Capt. W. H. Brownson, U. S. N., superintendent.	United States Naval Academy	Annapolis, Md.
H. H. Goodell, LL. D	Massachusetts Agricultural College	Amherst, Mass.
H. S. Pritchett, Ph. D., LL. D	Massachusetts Institute of Technology.	Boston, Mass.
Edmund A. Engler, Ph. D., LL. D	Worcester Polytechnic Institute	Worcester, Mass.
J. L. Snyder, Ph. D	Michigan Agricultural College	Agricultural College, Mich.

III.—*Schools of technology*—Continued.

Name of president.	University or college.	Address.
F. W. McNair, B. S	Michigan College of Mines	Houghton, Mich.
J. C. Hardy, A. M	Mississippi Agricultural and Mechanical College.	Agricultural Miss.
W. H. Lanier, A. B	Alcorn Agricultural and Mechanical College.	Westside, Miss.
Rev. James Reid, A. B	Montana College of Agriculture and Mechanic Arts.	Bozeman, Mont.
Nathan R. Leonard, A. M	Montana State School of Mines	Butte, Mont.
C. S. Murkland, Ph. D	New Hampshire College of Agriculture and Mechanic Arts.	Durham, N. H.
Alexander C. Humphreys, Sc. D	Stevens Institute of Technology	Hoboken, N. J.
Luther Foster, M. S. A	New Mexico College of Agriculture and Mechanic Arts.	Mesilla Park, N.
Charles R. Keyes, Ph. D., director	New Mexico School of Mines	Socorro, N. Mex.
W. S. Aldrich, M. E., director	Clarkson School of Technology	Potsdam, N. Y.
Palmer C. Ricketts, C. E	Rensselaer Polytechnic Institute	Troy, N. Y.
Col. A. L. Mills, U. S. A., supt	United States Military Academy	West Point, N. Y.
James B. Dudley, A. M	Agricultural and Mechanical College for the Colored Race.	Greensboro, N. C.
George T. Winston, LL. D	North Carolina College of Agriculture and Mechanic Arts.	West Raleigh, N.
J. H. Worst, LL. D	North Dakota Agricultural College	Agricultural N. Dak.
Charles S. Howe, Ph. D	Case School of Applied Science	Cleveland, Ohio.
Angelo C. Scott, A. M	Oklahoma Agricultural and Mechanical College.	Stillwater, Okla.
Thomas M. Gatch, Ph. D	Oregon Agricultural College	Corvallis, Oreg.
H. J. Wheeler, Ph. D., acting	Rhode Island College of Agriculture and Mechanic Arts.	Kingston, R. I.
Asbury Coward, LL. D., supt	South Carolina Military Academy	Charleston, S. C.
P. H. Mell, Ph. D	Clemson Agricultural College	Clemson College,
John W. Heston, Ph. D., LL. D	South Dakota Agricultural College	Brookings, S. Dal
Robert L. Slagle, Ph. D	State School of Mines	Rapid City, S. Da
David F. Houston, A. M	Agricultural and Mechanical College of Texas.	College Station, T
W. J. Kerr, Sc. D	Agricultural College of Utah	Logan, Utah.
J. M. McBryde, LL. D	Virginia Agricultural and Mechanical College and Polytechnic Institute.	Blacksburg, Va.
Scott Shipp, LL. D., supt	Virginia Military Institute	Lexington, Va.
E. A. Bryan, LL. D	Washington Agricultural College and School of Science.	Pullman, Wash.

IV.—PRINCIPALS OF NORMAL SCHOOLS.

Public normal schools.

Location.	Name of institution.	Principal.
ALABAMA.		
Florence	State Normal College	Marshall C. Wilso
Jacksonville	....do	C. W. Daugette.
Livingston	Alabama Normal College for Girls	Miss Julia S. Tutw
Normal	Agricultural and Mechanical College for Negroes.	W. H. Councill.
Troy	State Normal College	E. M. Shackelford
ARIZONA.		
Flagstaff	Northern Arizona Normal School	A. N. Taylor.
Tempe	Tempe Normal School of Arizona	A. J. Matthews.
ARKANSAS.		
Pine Bluff	Branch Normal College	Isaac Fisher.
CALIFORNIA.		
Chico	California State Normal School	Chas. C. Van Liew
Los Angeles	State Normal School	Edward T. Pierce
San Diego	....do	Samuel T. Black.
San Jose	....do	Morris Elmer Da
COLORADO.		
Greeley	Colorado State Normal School	Z. X. Snyder.
CONNECTICUT.		
Bridgeport	Bridgeport Training School	Besse E. Howes.
New Britain	Normal Training School	Marcus White.
New Haven	State Normal Training School	Arthur B. Morri
Willimantic	....do	George P. Phen

Public normal schools—Continued.

Location.	Name of institution.	Principal.
DISTRICT OF COLUMBIA.		
Washington	Washington Normal School No. 1	Anne M. Goding.
Do	Washington Normal School No. 2	Lucy E. Moten.
FLORIDA.		
De Funiak Springs	Florida State Normal School	C. L. Hayes.
Tallahassee	Florida State Normal and Industrial College.	Nathaniel B. Young.
GEORGIA.		
Athens	State Normal School	E. C. Branson.
College	Georgia State Industrial College	R. R. Wright.
Milledgeville	Georgia Normal and Industrial College.	J. Harris Chappell.
IDAHO.		
Albion	State Normal School	Horace Ellis.
Lewiston	....do	Geo. E. Knepper.
ILLINOIS.		
Carbondale	Southern Illinois State Normal University.	D. B. Parkinson.
Charleston	Eastern Illinois State Normal School.	L. C. Lord.
Chicago, Station O	Chicago Normal School	Arnold Tompkins.
Dekalb	Northern Illinois State Normal School.	John W. Cook.
Normal	Illinois State Normal University	David Felmley.
INDIANA.		
Indianapolis	Indianapolis Normal School	M. E. Nicholson.
Terre Haute	Indiana State Normal School	William W. Parsons.
IOWA.		
Cedarfalls	Iowa State Normal School	Homer H. Seerley.
Hawarden	Hawarden Public Normal School	C. H. Brake.
Woodbine	Woodbine Normal and Commercial School.	M. A. Reed.
KANSAS.		
Emporia	State Normal School	Jasper N. Wilkinson.
KENTUCKY.		
Frankfort	State Normal and Industrial Institute for Colored Persons.	James S. Hathaway.
Hazard	Hazard Normal School	Bailey P. Wootton.
Louisville	Louisville Normal School	W. J. McConathy.
LOUISIANA.		
Natchitoches	Louisiana State Normal School	B. C. Caldwell.
New Orleans	New Orleans Normal School	Miss Margaret C. Hanson.
MAINE.		
Castine	Eastern State Normal School	Albert F. Richardson.
Farmington	Farmington State Normal School	George C. Purington.
Fort Kent	Madawaska Training School	Mary P. Nowland.
Gorham	State Normal School	W. J. Corthell.
Lee	Lee Normal Academy	James D. Murphy.
Springfield	Springfield Normal School	Miss Ava H. Chadbourne.
MARYLAND.		
Baltimore	Maryland State Normal School	E. B. Prettyman.
MASSACHUSETTS.		
Boston	Boston Normal School	Wallace C. Boyden.
Do	Massachusetts Normal Art School	George H. Bartlett.
Bridgewater	State Normal School	Albert G. Boyden.
Cambridge	Cambridge Training School for Teachers.	Herbert H. Bates.
Fitchburg	State Normal School	John G. Thompson.
Framingham	State Normal School	Henry Whittemore.
Lowell	Training School for Teachers	Gertrude Edmund.
Salem	....do	W. P. Beckwith.
Westfield	....do	Clarence A. Brodeur.
Worcester	....do	E. Harlow Russell.
MICHIGAN.		
Detroit	Washington Normal School	Chas. L. Spain.
Mount Pleasant	Central State Normal School	Chas. T. Grawn.
Ypsilanti	Michigan State Normal School	Lewis R. Jones.

Public normal schools—Continued.

Location.	Name of institution.	Principal.
MINNESOTA.		
Duluth	State Normal School	E. W. Bohannon.
Mankato	do	Chas. H. Cooper.
Moorhead	do	Frank A. Weld.
St. Cloud	do	George R. Kleeberger.
St. Paul	Teachers' Training School	Miss B. M. Phelan.
Winona	State Normal School	J. F. Millspaugh.
MISSISSIPPI.		
Abbeville	Abbeville Normal School	K. Harmon.
Blue Springs	Blue Springs Normal College	E. W. Cochran.
Holly Springs	Mississippi State Normal School	E. D. Miller.
Louisville	Louisville Normal School	J. A. Hall.
Sherman	Mississippi Normal Institute	D. H. Davis.
Walnut Grove	Mississippi Central Normal School	John Rundle.
MISSOURI.		
Cape Girardeau	State Normal School	W. S. Dearmont.
Kirksville	State Normal School (first district)	John R. Kirk.
St. Louis	Normal and High School	William J. S. Bryan.
Warrensburg	State Normal School (second district)	E. B. Craighead.
MONTANA.		
Dillon	Montana Normal School	Henry H. Swain.
NEBRASKA.		
Peru	Nebraska State Normal School	W. A. Clark.
NEW HAMPSHIRE.		
Plymouth	State Normal School	J. E. Klock.
NEW JERSEY.		
Jersey City	Teachers' Training School	Joseph H. Brensinger
Newark	Newark Normal and Training School	W. S. Willis.
Paterson	Paterson Normal Training School	Jefferson R. Potter.
Trenton	New Jersey State Normal and Model Schools.	James M. Green.
NEW MEXICO.		
Las Vegas	New Mexico Normal University	Edgar L. Hewett.
Silver City	Normal School of New Mexico	C. M. Light.
NEW YORK.		
Albany	New York State Normal College	Wm. J. Milne.
Brockport	State Normal and Training School	Charles T. McFarlan
Brooklyn	Training School for Teachers	John Gallagher.
Buffalo	Buffalo Normal School	James M. Cassety.
Cortland	State Normal and Training School	Francis J. Cheney.
Fredonia	do	F. B. Palmer.
Geneseo	Geneseo State Normal School	John M. Milne.
Jamaica	Normal and Training School	A. C. McLachlan.
New Paltz	State Normal School	Myron T. Scudder.
New York	New York Training School for Teachers.	A. S. Downing.
Do	Normal College of the City of New York.	Thomas Hunter.
Oneonta	State Normal School	Percy I. Bugbee.
Oswego	Oswego State Normal and Training School.	Isaac B. Poucher.
Plattsburg	State Normal School	Geo. K. Hawkins.
Potsdam	State Normal and Training School	Thomas B. Stowell.
Rochester	Rochester Training School	Richard A. Searing.
Syracuse	Syracuse High School, Normal Department.	G. A. Lewis.
NORTH CAROLINA.		
Elizabeth City	State Colored Normal School	P. W. Moore.
Fayetteville	do	E. E. Smith.
Franklinton	Albion Academy and State Normal School.	Rev. J. A. Savage.
Goldsboro	State Normal School	Henry E. Hogans.
Greensboro	State Normal and Industrial School	Charles D. McIver.
Plymouth	Plymouth State Normal School	Chas. M. Eppes.
NORTH DAKOTA.		
Mayville	State Normal School	Joseph Carhart.
Valley City	do	George A. McFarlan

Public normal schools—Continued.

Location.	Name of institution.	Principal.
OHIO		
Cleveland	Cleveland Normal and Training School.	J. W. McGilvrey.
Columbus	Columbus Normal School	Margaret W. Sutherland.
Dayton	Dayton Normal School	Grace A. Greene.
Toledo	Toledo Normal Training School	Mrs. E. C. Hard.
OKLAHOMA.		
Alva	Northwestern Territorial Normal School.	T. W. Conway
Edmond	Territorial Normal School of Oklahoma.	Edmund H. Murdaugh.
Langston	Colored Agricultural and Normal University.	Inman E. Page.
OREGON.		
Ashland	Southern Oregon State Normal School.	Benj. F. Mulkey
Drain	Central Oregon State Normal School	J. H. Orcutt.
Monmouth	State Normal School	Edwin De Vore Ressler.
Weston	Eastern State Normal School	J. A. Beattie.
PENNSYLVANIA.		
Bloomsburg	State Normal School	Judson P. Welsh.
California	Southwestern State Normal School	Theo. B. Noss.
Clarion	Clarion State Normal School	A. J. Davis.
East Stroudsburg	East Stroudsburg State Normal School.	E. L. Kemp.
Edinboro	State Normal School	John F. Bigler.
Indiana	Indiana Normal School of Pennsylvania.	D. J. Waller, jr.
Kutztown	Keystone State Normal School	A. C. Rothermel.
Lockhaven	Central State Normal School	J. R. Flickinger.
Mansfield	Mansfield State Normal School	Andrew T. Smith.
Millersville	First Pennsylvania State Normal School.	E. Oram Lyte.
Philadelphia	Philadelphia Normal School for Girls.	J. M. Willard.
Pittsburg	Pittsburg High School, Normal Department.	Jane Ralston.
Shippensburg	Cumberland Valley State Normal School.	G. M. D. Eckels.
Slippery Rock	Slippery Rock State Normal School	Albert E. Maltby.
Westchester	State Normal School	George M. Philips.
RHODE ISLAND.		
Providence	Rhode Island State Normal School	Charles S. Chapin.
SOUTH CAROLINA.		
Rockhill	Winthrop Normal College	D. B. Johnson.
SOUTH DAKOTA.		
Madison	State Normal School	W. H. H. Beadle
Spearfish	....do	F. L. Cook.
Springfield	....do	J. S. Frazee.
TENNESSEE.		
Nashville	Peabody Normal School	James D. Porter.
TEXAS.		
Denton	North Texas Normal School	J. S. Kendall.
Detroit	Detroit Normal School	R. M. Parker.
Huntsville	Sam Houston Normal Institute	H. C. Pritchett.
Prairie View	Prairie View State Normal and Industrial College.	Ed. L. Blackshear.
UTAH.		
Cedar City	Southern Branch of the State Normal School.	Milton Bennion.
VERMONT.		
Castleton	State Normal School	Philip R. Leavenworth.
Johnson	....do	John L. Alger.
Randolph Center	....do	Edward Conant.
VIRGINIA.		
Farmville	State Female Normal School	Robert Frazer.
Hampton	Hampton Normal and Agricultural Institute.	H. B. Frissell.
Petersburg	Virginia Normal and Industrial Institute.	J. H. Johnston.

Public normal schools—Continued.

Location.	Name of institution.	Principal.
WASHINGTON.		
Cheney	State Normal School	Lewis B. Alger.
Ellensburg	....do	W. E. Wilson.
WEST VIRGINIA.		
Athens	West Virginia State Normal School	Geo. M. Ford.
Fairmont	Fairmont State Normal School	M. C. Lough, acting.
Glenville	State Normal School	John C. Shaw.
Huntington	Marshall College, State Normal School.	Lawrence J. Corbly.
Institute	West Virginia Colored Institute	J. McH. Jones.
Shepherdstown	Shepherd College, State Normal School.	E. F. Goodwin.
West Liberty	West Liberty State Normal School	James M. Skinner.
WISCONSIN.		
Menominee	Dunn County Teachers' Training School.	W. L. Morrison.
Milwaukee	State Normal School	Charles McKenney.
Oshkosh	....do	R. H. Halsey.
Platteville	....do	D. McGregor.
River Falls	River Falls State Normal School	W. J. Brier.
Stevens Point	State Normal School	Theron B. Pray.
Wausau	Marathon County Training School	O. E. Wells.
West Superior	Superior State Normal School	I. C. McNeill.
Whitewater	State Normal School	Albert Salisbury.
WYOMING.		
Laramie	Wyoming State Normal School	F. H. H. Roberts.

Private normal schools.

ALABAMA.		
Falkville	Falkville Normal College	E. L. Hays.
Huntsville	Central Alabama Academy	A. W. McKinney.
Mobile	Emerson Normal Institute	Rev. A. T. Burnell.
Snow Hill	Snow Hill Normal and Industrial Institute.	W. J. Edwards.
Tuskegee	Tuskegee Normal and Industrial Institute.	B. T. Washington.
ARKANSAS.		
Jamestown	Arkansas Normal College	J. L. Graham.
Mount Ida	Mount Ida Normal Academy	A. J. Denton.
Pea Ridge	Pea Ridge Normal College	S. C. Parish.
Sulphur Rock	Sulphur Rock College	W. B. Knight.
COLORADO.		
Denver	Denver Normal and Preparatory School.	Fred. Dick.
DISTRICT OF COLUMBIA.		
Washington	Kindergarten Normal Training School.	Miss Susan P. Pollock.
Do	Woman's League Kindergarten Training School.	Mrs. Anna E. Murray.
FLORIDA.		
Jasper	Jasper Normal Institute	Wm. A. Cate.
Orange Park	Orange Park Normal and Manual Training School.	Stephen G. Butcher.
GEORGIA.		
Augusta	Haines Manual and Industrial Institute.	Miss Lucy C. Laney.
Cornelia	Cornelia Normal Institute	A. E. Booth.
Douglas	Southern Normal School	J. Walter Hendricks.
Macon	Ballard Normal School	George C. Burrage.
Thomasville	Allen Normal and Industrial School	Abbie B. Howland
ILLINOIS.		
Addison	German Evangelical Lutheran Teachers' Seminary.	E. A. W. Krauss.
Bushnell	Western Normal College	W. W. Earnest.
Dixon	Northern Illinois Normal School	J. B. Dille.
Galesburg	Galesburg Kindergarten Normal School.	M. Evelyn Strong.
Hoopeston	Greer College	J. M. Clary.
Macomb	Western Illinois Normal School and Business Institute.	I. F. Meyer.

Private normal schools—Continued.

Location.	Name of institution.	Principal.
ILLINOIS—continued.		
Oregon	Wells School for Teachers	H. W. Sullivan.
Rushville	Rushville Normal and Business College.	Maxwell Kennedy.
INDIANA.		
Angola	Tri-State Normal School	L. M. Sniff.
Corydon	Ohio Valley Normal School	E. S. Hallett.
Covington	Indiana Normal School	Olive E. Coffeen.
Danville	Central Normal College	Jonathan Rigdon.
Indianapolis	Indiana Kindergarten and Primary Normal Training School.	Eliza A. Blaker.
Marion	Marion Normal College	C. W. Boucher.
Muncie	Eastern Indiana Normal University	F. A. Z. Kumler.
Rochester	Rochester Normal University	Wm. H. Banta.
Valparaiso	Northern Indiana Normal School	H. B. Brown.
IOWA.		
Bloomfield	Southern Iowa Normal, Scientific, and Business Institute.	A. A. Williams.
Denison	Denison Normal School	W. C. Van Ness.
Humboldt	Humboldt College	J. P. Peterson.
Lemars	Lemars Normal College	Herman H. Thoren.
Newton	Newton Normal College	G. W. Wormley.
Perry	Perry Normal School	Will M. Tarr.
Shenandoah	Western Normal College, Shenandoah Commercial Institute and Musical Conservatory.	J. M. Hussey.
Waukon	Waukon Business College and Normal School.	J. E. Mills.
KANSAS.		
Great Bend	Central Normal College	James N. Clark.
Marysville	Modern Normal College	J. G. Ellenbecker.
Nickerson	Nickerson Normal College	Ed. B. Smith.
KENTUCKY.		
Blaine	Blaine Normal School	G. Milton Elam.
Bowling Green	Bowling Green Business College and Southern Normal School.	H. H. Cherry.
Hardinsburg	Breckinridge Normal College	Andrew Driskell.
Lexington	Chandler Normal School	Fannie J. Webster.
Madisonville	Western Kentucky Normal School	H. Evelyn Brooks.
Middleburg	Middleburg Normal College	J. W. Davis.
Morehead	Morehead Normal School	F. C. Button.
Waddy	Central Normal College	R. A. Burton.
MARYLAND.		
Ammendale	Ammendale Normal Institute	Brother Austin.
Baltimore	Baltimore Normal School (colored)	George Harrison.
Buckeystown	Buckeystown Normal Training School	F. R. Neighbours.
MASSACHUSETTS.		
Boston (1069 Boylston)	Froebel School, Kindergarten Normal Classes.	Annie C. Rusk.
Boston	Kindergarten Training School	Lucy Wheelock.
Waltham	Notre Dame Training School	Sister Mary Josephine.
MICHIGAN.		
Owosso	Oakside School	Mrs. L. E. Gould.
Petoskey	Graves Normal Academy	M. O. Graves.
MINNESOTA.		
Madison	Normal School of the United Norwegian Lutheran Church.	O. Lokensgaard.
New Ulm	Dr. Martin Luther College	John Schaller.
MISSISSIPPI.		
Burgess	Burgess Normal Institute	Cuthbert Spencer.
Poplar Springs	Poplar Springs Normal College	John D. Mitchell.
Shelby	Shelby Normal School	J. M. Williamson.
Tougaloo	Normal Department Tougaloo University.	Frank G. Woodworth.
MISSOURI.		
Chillicothe	Chillicothe Normal Business and Shorthand College.	Allen Moore.
Gainesville	Gainesville Normal School	A. P. Selsor.
Laddonia	Laddonia Normal Institute	W. M. Jones.
Mill Spring	Hales College	W. H. Hale.
Pleasant Hope	Pleasant Hope Normal Academy	J. M. Hicks.
Stanberry	Stanberry Normal School	D. S. Robbins.

Private normal schools—Continued.

Location.	Name of institution.	Principal.
NEBRASKA.		
Fremont	Fremont Normal School	W. H. Clemmons.
Santee	Santee Normal Training School	Alfred L. Riggs.
Wayne	Nebraska Normal College	J. M. Pile.
NEW YORK.		
New York	Teachers College	James E. Russell.
NORTH CAROLINA.		
Asheville	Normal and Collegiate Institute	Rev. Thos. Lawrence
Liberty	Liberty Normal College	Thos. C. Amick.
Lumberton	Whitin Normal School	D. P. Allen.
Raleigh	St. Augustine's School	Rev. A. B. Hunter.
Wilmington	Gregory Normal Institute	Geo A. Woodward.
Winton	Waters Normal Institute	C. S. Brown.
NORTH DAKOTA.		
Grand Forks	Northwestern Normal College	John J. Swengel.
OHIO.		
Ada	Ohio Normal University	H. S. Lehr.
Canfield	Northeastern Ohio Normal College	James B. Bowman.
Dayton	St. Mary's Academy	Brother Michael.
Ewington	Ewington Academy	F. F. Vale.
Fayette	Fayette Normal University	P. C. Palmer.
Fostoria	Ohio Normal Training School	Wm. E. Asheraft.
Lebanon	National Normal University	J. W. Withers.
Middlepoint	Western Ohio Normal School	P. S. Morgan.
New Philadelphia	John P. Kuhns Normal School	John P. Kuhn.
Tremont City	Western Normal University	B. L. Barr.
Woodville	Teacher's Seminary	Theo. Mees.
PENNSYLVANIA.		
Ebensburg	Ebensburg Normal Institute	H. T. Jones.
Muncy	Lycoming County Normal School	G. B. Milnor.
Pittsburg	Curry College	G. H. Kane.
SOUTH CAROLINA.		
Charleston	Avery Normal Institute	Morrison A. Holmes.
Do	Wallingford Academy	Rev. David Brown.
Frogmore	Penn Normal and Industrial School	Miss Ellen Murray.
Greenwood	Brewer Normal School	Rev. J. M. Robinson.
Lancaster	Lancaster Normal and Industrial Institute.	M. D. Lee.
SOUTH DAKOTA.		
Sioux Falls	Lutheran Normal School	Rev. A. Mikkelsen.
TENNESSEE.		
Chattanooga	Chattanooga Normal University	John Neuhardt.
Dickson	Tennessee Normal School	T. B. Loggins.
Fountain City	Holbrook Normal College	Jas. C. Blassingame.
Greenbrier	Central Tennessee Normal and Commercial School.	N. J. Pritchard.
Huntingdon	Southern Normal University	A. E. Booth.
Jonesboro	Warner Institute	H. L. Peterson.
Memphis	Le Moyne Normal Institute	A. J. Steele.
Morristown	Morristown Normal Academy	Judson S. Hill.
TEXAS.		
Commerce	East Texas Normal College	W. L. Mayo.
Cumby	Independent Normal College	Geo. A. Curlee.
VIRGINIA.		
Reliance	Shenandoah Normal College	Rev. I. P. Smith.
Richmond	Hartshorn Memorial College	Lyman B. Tefft.
Stuart	Stuart Normal College	M. W. Royall.
WEST VIRGINIA.		
Harpers Ferry	Storer College	Henry T. McDonald.
Summersville	Summersville Normal School	P. H. Murphy, J. L. [illegible] art.
WISCONSIN.		
Milwaukee	National German-American Teachers Seminary.	Emil Dapprich.
St. Francis	Catholic Normal School of the Holy Family and Pio Nono College.	Rev. M. J. Lochemes

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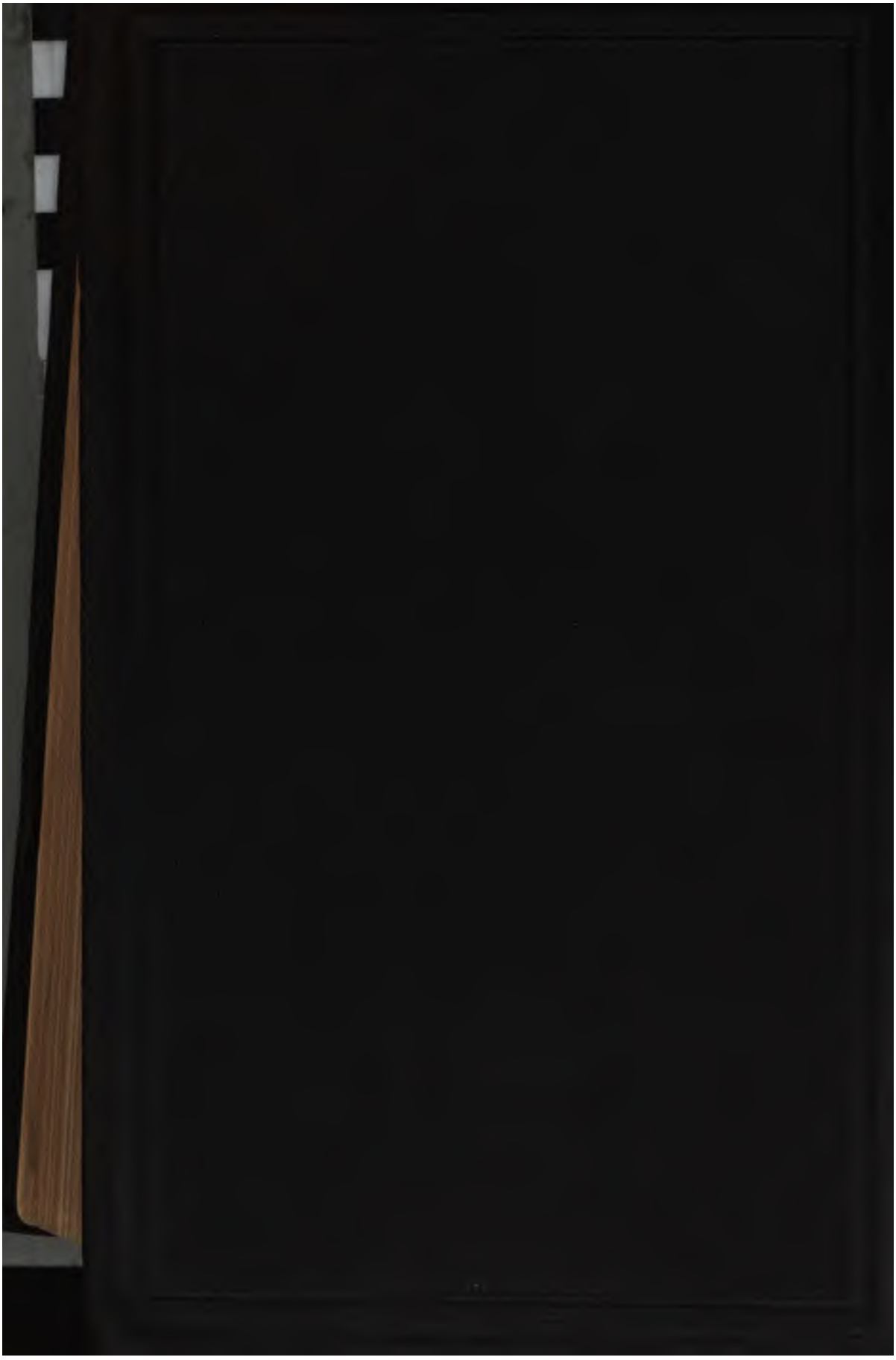
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